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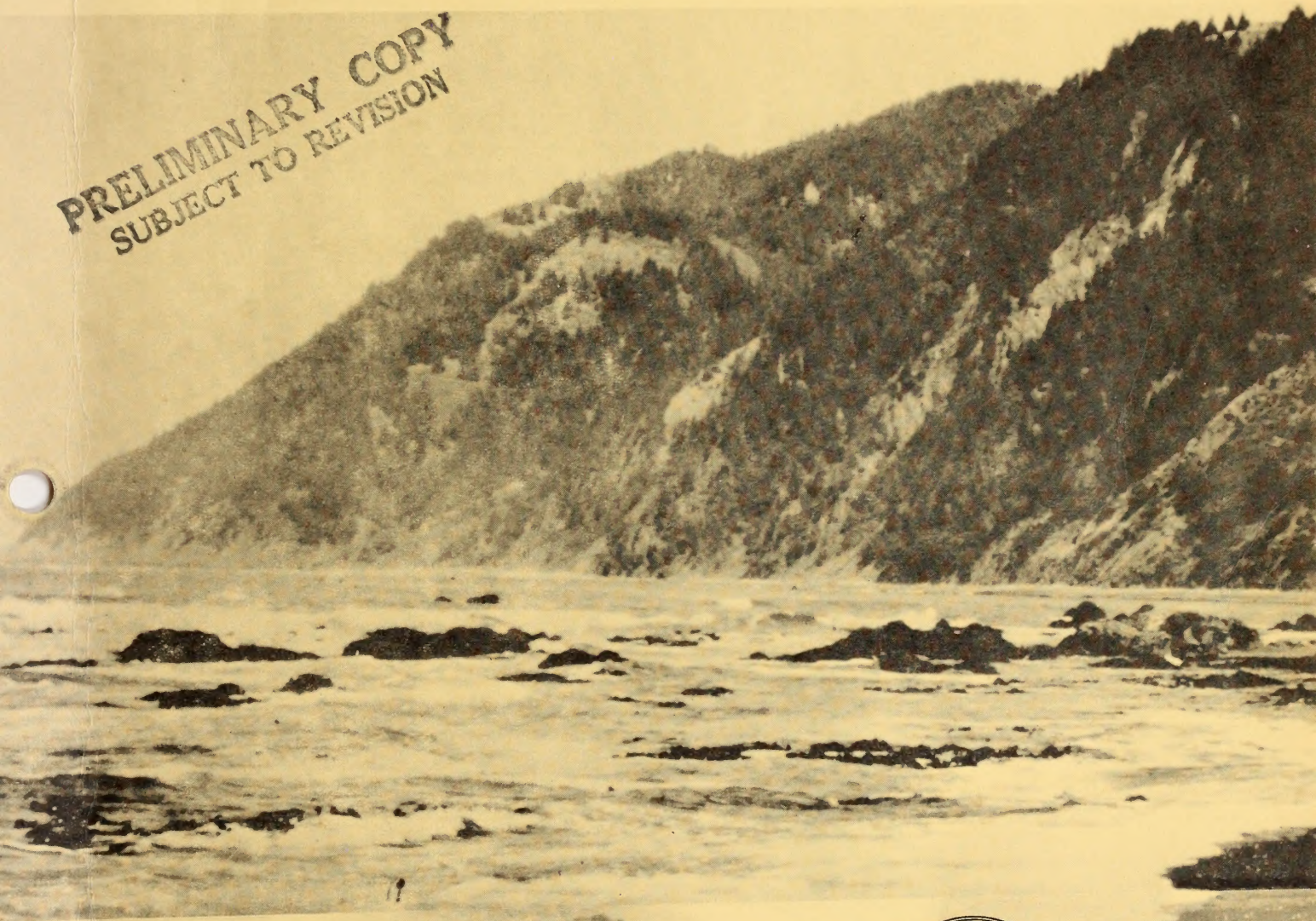

KING RANGE NATIONAL CONSERVATION AREA

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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MANAGEMENT PROGRAM

for the

KING RANGE NATIONAL CONSERVATION AREA

United States Department Of The Interior
Bureau Of Land Management
Ukiah District

March 1974

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Rising abruptly from the ocean beach, the King Range attains an altitude of 4,087 feet within only three miles of the Pacific shoreline. The steep, thickly vegetated mountains are remote and often clothed in somber fog. They were too rugged to attract many settlers and have been largely bypassed by civilization. The range has thus earned its reputation as "California's Lost Coast."

TABLE OF CONTENTS

		page
I.	INTRODUCTION	1
	A. The Area	1
	B. Purpose of this Report	4
	C. Description of the Area	4
	D. History	6
	E. Land Ownership	8
II.	LEGISLATION	9
III.	THE BOUNDARY	11
IV.	THE RESOURCES	12
	A. Lands	12
	B. Geology and Minerals	13
	C. Forests	14
	D. Livestock Forage	15
	E. Watershed	15
	F. Wildlife	16
	G. Fisheries	17
	H. Recreation	19
V.	THE PROPOSED PLAN AND MANAGEMENT PROGRAM	22
	A. Area-wide and Multi-Zone Actions	24
	B. Zone 1 - Punta Gorda	29
	C. Zone 2 - West Slope	31
	D. Zone 3 - Shelter Cove	34
	E. Zone 4 - Point No Pass	36
	F. Zone 5 - Whale Gulch	38
	G. Zone 6 - Bear Creek	39
	H. Zone 7 - Honeydew Creek	42
	I. The Support Activities	46
	1. Land Acquisition	46
	2. Transportation	48
	3. Protection	50
	4. Communications	51
	5. Administrative Sites	51
	6. Cadastral Survey	52
	J. Actions Needed Outside of the KRNCA	52
	K. Summary Overview of Proposed Plan and Management Program	54

VI. THE COST TO THE UNITED STATES 57
A. Budget Costs 57
B. Non-Budget Costs 60

VII. ECONOMIC EFFECTS ON LOCAL COMMUNITIES AND GOVERNMENTS 62

VIII. PUBLIC PARTICIPATION AND INTEREST 67

IX. THE CHALLENGE 68

LIST OF APPENDICES 70

ZONE MAPS

I INTRODUCTION

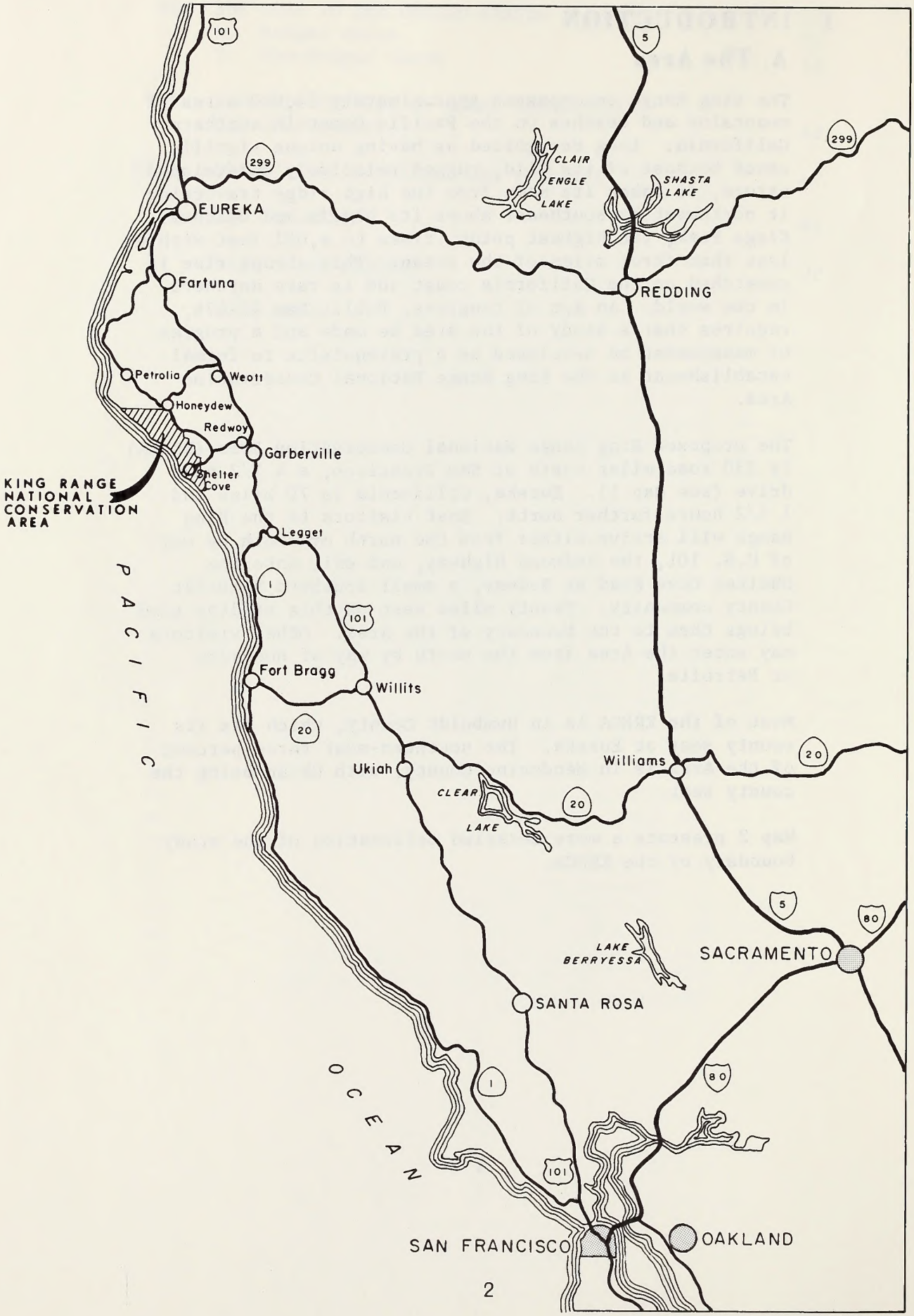
A. The Area

The King Range encompasses approximately 54,000 acres of mountains and beaches on the Pacific Coast in northern California. Long recognized as having unique significance because of its wild, rugged relatively undeveloped nature, it takes its name from the high ridge traversing it northwest by southeast above its bluffs and beaches. Kings Peak, the highest point, rises to 4,087 feet within less than three miles of the ocean. This abrupt rise is unmatched on the California coast and is rare anywhere in the world. An Act of Congress, Public Law 91-476, requires that a study of the area be made and a program of management be developed as a prerequisite to formal establishment as the King Range National Conservation Area.

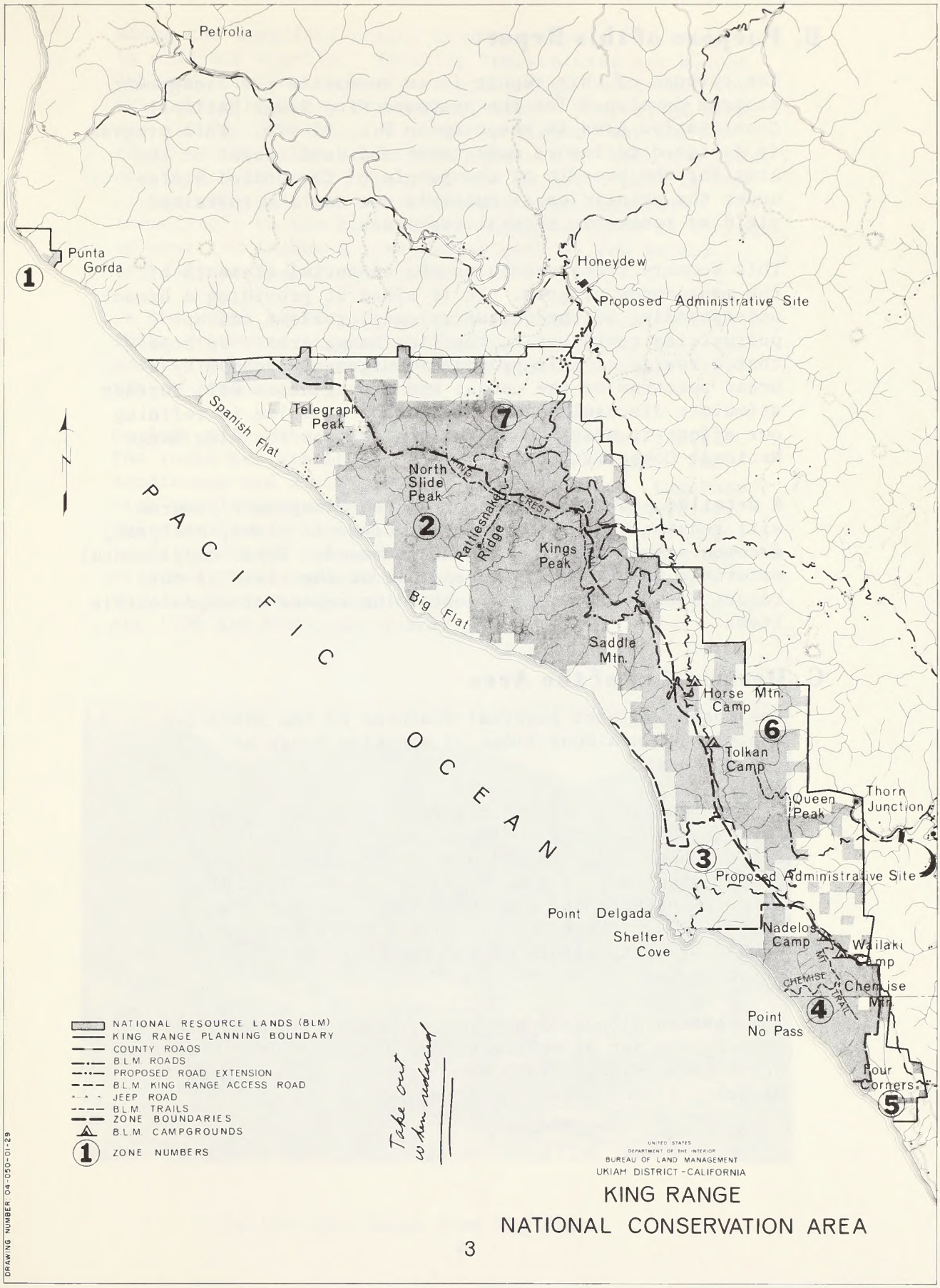
The proposed King Range National Conservation Area (KRNCA) is 230 road miles north of San Francisco, a 4 1/2 hour drive (see Map 1). Eureka, California is 70 miles and 1 1/2 hours further north. Most visitors to the King Range will arrive either from the north or south by way of U.S. 101, the Redwood Highway, and exit onto the Shelter Cove Road at Redway, a small southern Humboldt County community. Twenty miles west on this winding road brings them to the boundary of the Area. Other visitors may enter the Area from the north by way of Honeydew or Petrolia.

Most of the KRNCA is in Humboldt County, which has its county seat at Eureka. The southern-most three percent of the Area is in Mendocino County, with Ukiah being the county seat.

Map 2 presents a more detailed delineation of the study boundary of the KRNCA.


101
5
299
CLAIR
ENGLE
LAKE
SHASTA
LAKE
299
EUREKA
Fartuna
REDDING
Petrolia
Weott
Honeydew
Redwoy
Garberville
Shelter
Cove
KING RANGE
NATIONAL
CONSERVATION
AREA
Legget
1
101
PACIFIC
Fort Bragg
Willits
20
Ukiah
Williams
20
CLEAR
LAKE
20
5
80
LAKE
BERRYESSA
SACRAMENTO
SANTA ROSA
OCEAN
1
80
101
SAN FRANCISCO
OAKLAND

MAP 1


Petrolia
Punta Gorda
Honeydew
Proposed Administrative Site
Telegraph Peak
Spanish Flat
North Slide Peak
Rattlesnake Ridge
Kings Peak
Big Flat
Saddle Mtn.
Horse Mtn. Camp
Tolkan Camp
Queen Peak
Thorn Junction
Proposed Administrative Site
Point Delgada
Shelter Cove
Nadelos Camp
Wailaki Camp
Chemise Mtn.
Point No Pass
Four Corners
PACIFIC OCEAN
NATIONAL RESOURCE LANDS (BLM)
KING RANGE PLANNING BOUNDARY
COUNTY ROADS
B.L.M. ROADS
PROPOSED ROAD EXTENSION
B.L.M. KING RANGE ACCESS ROAD
JEEP ROAD
B.L.M. TRAILS
ZONE BOUNDARIES
B.L.M. CAMPGROUNDS
ZONE NUMBERS
Take out w/ new redroad
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
UKIAH DISTRICT - CALIFORNIA
KING RANGE
NATIONAL CONSERVATION AREA
DRAWING NUMBER 04-050-01-29

King Range

B. Purpose of this Report

The purpose of this report is to summarize the management program developed for the proposed King Range National Conservation Area in response to P.L. 91-476. This program is designed to insure management and development of the Area for the benefit of the people of the United States under the principles of multiple use and the sustained yield of renewable natural resources.

This summary report contains the essential elements of the management program. It is aimed at providing a broad understanding of the unique values, problems and opportunities contained in the King Range Area. We hope that a review of this proposed management program by a broad spectrum of the public and its agencies will further stimulate discussion and information of value in refining our effort to meet the objectives set for the King Range National Conservation Area.

A detailed knowledge of the proposed management program will require study of the large volume of plans, analyses, documents and maps on which it is based. These supplemental materials are listed as Appendices at the close of this report with procedures for obtaining copies of reproducible items.

C. Description of the Area

The most prominent physical features of the KRNCA are the high mountainous ridge of the King Range and the coastal beach.

On the western slope of this range many short, steep streams run directly to the ocean. A combination of steep slopes, high rainfall and unstable soil and rock formations has created many cliffs, huge rock slides and talus. With few exceptions, the steep slopes extend clear to the beach. Thus, the beach is usually narrow and, where a number of rocky points extend into the surf, may be nonexistent.

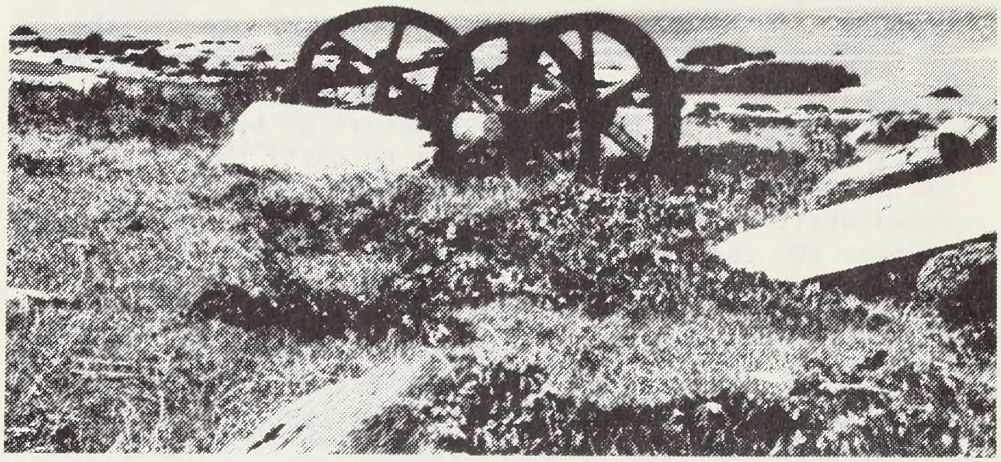
The eastern slopes of the range, while also steep and rugged, are not as severe as the western side. Streams drain less abruptly into the northerly flowing Mattole River.

Along the immediate coast, near sea-level, the climate is mild and equable. Freezing temperatures are almost unknown. In summer the persistent fogs counteract the heat which blankets the inland areas. The inland areas are also colder than the coast in winter, but not excessively so. The predominent feature of both the coast and inland is rain. From October to April this is one of the wettest spots on the West Coast. Honeydew immediately to the north of the Area, records an average of over 100 inches a year and as much as 200 inches may fall at higher elevations.

To the north of King Range, and to some extent within it, there are broad expanses of grass, especially near the coast. Inland and to the south brush and Douglas fir timber predominate.

Geologically, the area is strongly folded and faulted. The rocks are almost all sedimentary in origin. The sandstones and shales are not hard rocks and, together with the intense deformation, have created conditions where erosion is common and locally severe. Enormous landslides scar the mountainsides. Some of these are believed to be associated with earthquakes; several such slides are reputed to have occurred at the time of the 1906 San Francisco quake.

Rattlesnake Ridge from Big Flat



Remnants of the Early Steamship Era

D. History

Little is known of the Indians who first lived in the area: Whilkuts, Sinkyones, Mattoles. None of them survived very long after the coming of the white man, and very little of their tradition and culture was preserved. They occupied the area for at least 2000 years, according to a preliminary estimate by an archaeologist based upon his observations of shell mounds along the beach. They undoubtedly used the entire area for hunting and gathering, but the evidence remains to be found.

The first white settlers came in the 1850's, attracted by the excellent grazing land. For nearly 100 years livestock products were nearly the sole support of the area. Some tanbark (bark from the tanoak tree, used as a source of tannin for leather-making) was sent to market, as were apples from a few orchards in the Mattole Valley. One interesting but abortive effort to develop industry is commemorated in the name of the town of Petrolia just to the north of the KRNCA. The first oil well in California was drilled there.

Petroleum products were first shipped to market in 1865; however, the quality and volume were low and very little commercial production ever actually took place.

About 25 years ago, Douglas fir timber became valuable and in the 1950's and 60's it was harvested at a great rate. Now almost no timber is left on private land and the logging industry is essentially dormant in the area. All the sawmills in the immediate area have closed, and what timber is now harvested goes to the larger mills at Eureka and other major centers. Although the King Range is in the heart of the Redwood Empire, by a curious combination of climate and topography, no redwood is native to it.

Commercial salmon fishing off the coast has been important, but the fishing fleets are headquartered in other places, resulting in little economic impact on the area. Recreational fishing has also been important, mainly around the little settlement of Shelter Cove.

Shelter Cove

Another factor that has had a significant effect on the Area is recreational subdivision for second homes and retirement. While not proliferating as much as they have in other parts of California, portions of the area have been subdivided, affecting the types and amount of use occurring within the area. The most notable development has been Shelter Cove, with several thousand lots sold. In other parts of the King Range, such as the private land parcels of Whale Gulch, a sizeable number of young people have also settled to pursue various rural life styles.

E. Land Ownership

Of the total of 54,199 acres within the study boundary of the KRNCA, 34,095 acres are national resource lands administered by the Bureau of Land Management, an agency of the U.S. Department of the Interior. The remaining lands, comprising 20,104 acres, are privately owned.

The acreages for private and public lands cited above are based on the situation as of March 1, 1974. As the acquisition program described later continues, the proportion of public lands will increase with a corresponding decrease in the amount of private lands.

Private and public lands are intermingled throughout the Conservation Area. However, the largest concentrations of private lands are along the immediate coast, in the Shelter Cove subdivision, and in the southern portion of the area commonly referred to as Whale Gulch.

II LEGISLATION

The legislation which provides for the establishment of the King Range National Conservation Area is the culmination of years of effort to achieve recognition for the King Range. As long ago as 1929, the area was recognized as outstanding and was withdrawn from disposition or sale under the public land laws in order to preserve it until its highest and best uses could be determined.

In 1962, responding to increased interest and awareness of the area by local residents and conservation organizations, Congressman Clem Miller introduced the first version of the King Range Act. After Miller's death, Congressman Don Clausen carried on the effort to achieve special recognition for the area, and Public Law 91-476 was signed by the President on October 21, 1970.

The main features of the act are:

1. It authorizes and directs the Secretary of the Interior to establish within described boundaries, the King Range National Conservation Area, "and to consolidate and manage the public lands in the area with the purpose of developing for the use and benefit of the people of the United States the lands and other resources therein under a program of multiple usage and of sustained yield." Procedural requirements for accomplishment of this objective are set out in the Act.

2. It directs that "...there will be a comprehensive, balanced, and coordinated plan of land use, development, and management of the area, ...based on an inventory and evaluation of available resources... and other features of the Area." The plan is to cover all lands within the Area, regardless of ownership.

3. It requires that "the plan will indicate the primary or dominant uses which will be permitted on various portions of the Area" and that "secondary or collateral uses may be permitted to the extent that such uses are compatible with and do not unduly impair the primary or dominant uses, according to a seasonal schedule or otherwise."

4. The Secretary may acquire lands or interest in lands within the Area through purchase or exchange. In an exchange of lands the Secretary can pay or accept up to one-third the value of the land in cash to equalize values. The Secretary may not acquire, without the consent of the owner, any private lands which, on the date of the Act, were utilized for residential, agricultural, or commercial purposes so long as such usage is compatible with the purposes of the Act.

5. The Secretary may establish reasonable mining regulations to protect the scenic and aesthetic values of the Area and to assure against pollution of the streams and waters.

6. The Secretary shall use public and private assistance as may be required to prepare a program of multiple usage and of sustained yield of renewable natural resources for the Area. The program shall include, but is not limited to:

   (1) A quantitative and qualitative analysis of resources.

   (2) Proposed boundaries of the area.

   (3) A plan of land use, development and management together with any proposed cooperative activities with the State of California, local governments, and others.

   (4) A statement of expected costs and an economic analysis of the program with particular reference to costs to the United States and expected economic effects on local communities and governments.

   (5) An evaluation of the program in terms of local interest.

7. The Secretary shall establish the Area after copies of the program are submitted to Congress, the Governor of California and the supervisors of the counties in which King Range is located, after publishing a notice of his intention, and after receiving expression of local views.

III THE BOUNDARY

The Act requires that the management program for the proposed conservation area include recommendations as to the boundaries of the area. The boundary of the planning area is shown on Map 2. The same boundary is suitable for the conservation area with several exceptions.

Section 9(a) of the Act, in delineating the survey and investigation area for planning purposes, establishes a separate 254 acre area surrounding the Punta Gorda lighthouse. This area lies approximately two miles below the Mouth of the Mattole River and three miles above the northern boundary of the main King Range Area.

In order to provide the full protection of the King Range Act, to assure compatible uses of private lands and facilitate management, we recommend that the Area boundary be extended as shown on the fold-out KRNCA map at the close of this report.

Inclusion of the area along the south bank of the Mattole River, from approximately one and one-half miles above its mouth, and extending in a three-quarter mile wide coastal strip to Punta Gorda will ensure better control of visitor vehicle use from the county road than is now provided by the narrow access route along the old Coast Guard road location. Inclusion of a three-quarter mile wide shoreline strip from Punta Gorda south to the main King Range Area will provide better management control along the foot-access route planned along this stretch. Access in this area is planned to be by easement, but compatible adjoining land use is essential.

One forty acre tract (NW¼NW¼ Sec. 36, T. 4 S., R. 1 E.) within the KRNCA study boundary was inadvertently omitted in the Section 9(a) description. This omission could allow incompatible uses to develop on this uncovered inholding. We recommend correction of this oversight.

We also recommend the inclusion of a forty acre tract of national resource land (SE¼SE¼, Sec. 19, T. 5 S., R. 2 E.) contiguous to other public land within the present boundary at the headwaters of Whale Gulch. This minor boundary modification will facilitate more efficient management and provide uniform protection to closely related lands.

Legal descriptions of the proposed boundary revisions and further rationale are provided in Appendix G. Additional area involved totals 3,066 acres.

IV THE RESOURCES

The King Range Act calls for "a quantitative and qualitative analysis of the resources of the Area." This is the essential starting point for land use planning. Thus, field inventories of the resources of the King Range Area were conducted during 1972. The detailed results of this effort comprise several volumes of reports, stacks of computer printouts, and many photographs and map overlays. Only a condensed summary of the information gathered can be presented here. As noted in the Appendices section of this report, the "Unit Resource Analysis" which compiles this data is available for review at BLM offices in Ukiah, Sacramento and Washington, D.C.

Under BLM planning procedures, current resource inventories are evaluated from the standpoints of quantity, quality, current uses, trends and potential capabilities under full management. The following summary evaluations, presented by major resource categories, focus on the present resource situation, uses and trends. Capabilities for development of specific resource capabilities are subsequently evaluated within the context of economic, environmental and multiple use considerations in the proposed plan and management program outlined in Part IV of the report.

A. Lands

Primary land uses currently are for open space, extensive recreation and wildlife habitat. Secondary uses currently include grazing, with timber production and mining activity temporarily inactive. Agricultural use and potential is low due to rough topography and soil conditions.

The Shelter Cove subdivision contains nearly 5,000 lots, most from one-tenth to one acre in size. Although only 40 residences have been constructed to date, the developer anticipates construction starts at the rate of 60 to 80 per year. The Whale Gulch area contains a smaller number of rural residences more widely scattered and not the result of a planned subdivision. Several owners of land being considered in BLM's King Range land consolidation program have been approached by subdividers. In summary, subdivision interest is active, but actual residential construction is very limited and the growth trend slow.

Residential growth in the area could bring need for solid waste disposal sites and additional road and utility rights-of-way. Communications site needs on higher peaks (e.g. for California Division of Forestry) are a possibility.

Other public purposes such as ecosystem studies in the coastal zone or other remote parts of the King Range and archeological studies of Indian culture remnants are land associated values that must be considered in planning.

B. Geology and Minerals

The area shows much evidence of geologic instability. Two fault zones have been identified in the King Range. One is thought to be associated with the well known San Andreas fault and the 1906 San Francisco earthquake. Unstable colluvial deposits with numerous slumps and slides are common throughout the area.

Such unstable conditions call for special care in planning locations for construction such as roads, trails and recreation facilities. Detailed geological and soils information is included in the Unit Resource Analysis report.

The U.S. Geological Survey reports the King Range to be without value for minerals covered by leasing laws. Despite early oil and gas production at Petrolia, complex folding and faulting make the King Range a less likely prospect for such deposits than the Petrolia district to the north.

There has been some manganese production in the past from the Queens Peak mine and some potential still exists. While the Mattole River produces sand and gravel, no workable deposits are known within the King Range boundary. Roads, however, are often satisfactorily surfaced with hard sandstone excavated during construction operations.

C. Forests

About 70 percent of the Area has the potential to grow timber. Some of these lands do not now contain stands of trees because of logging, wildfires or other causes. The results of the timber inventory are summarized below.

TABLE I

TIMBER RESOURCES OF THE KING RANGE

	BLM Land	Private Land	Total
Timberland, acres	21,006	16,774	37,780
Volume, 1000 bd.ft.	184,054	99,517	283,571

Logging has been virtually at a standstill in the Area during recent years. After initial harvests totalling 9 million board feet over several years, BLM placed a moratorium on timber sales in 1965 pending outcome of the King Range National Conservation Area proposal. Logging of private lands, especially on the critical west slope, has also been all but stopped during this period, in part due to a cautious access policy across public lands by BLM pending final management decisions for the area.

Overall, however, the 1972 inventories indicate that 5.6 million board feet of timber (International 1/8 scale) could be harvested on a sustainable basis from the full 37,779 acres of commercial forest land contained in all ownerships within the Area. With the addition of intensive management practices such as genetic improvement, fertilization and thinning, a cut of 8.8 million board feet annually could be sustained. Of course, multiple use and environmental protection considerations that shape final planning decisions make these the upper limits of capacity rather than production forecasts.

D. Livestock Forage

A less obvious resource use than timber production is livestock grazing, since most grazing areas are now in the northwestern part of the Range, far from public lands. The vegetative inventory shows 4,342 acres have grass cover. Enough forage is now produced on the grassland type to furnish 3,084 animal unit months of use. Wildlife requirements are estimated at 1,224 animal unit months, leaving 1,860 AUM's for livestock use. However, a portion of this grass type occurs in small glades within forests and brush fields. It is not readily available for domestic grazing and is not used. Current operable capacity for livestock grazing is estimated at 1,274 animal unit months. This will permit 212 cows or 1,060 sheep to graze for six months each year.

While BLM currently administers only one grazing lease in the Area for 76 AUM's of use, sheep grazing on private lands is estimated at over 1,300 AUM's annually. This grazing, when combined with use by deer, somewhat exceeds capacity of accessible forage, but concentration of use and nearly year round grazing are causing deterioration of the range in some areas.

E. Watershed

Over half of the King Range Area is in a stable condition due to its heavy vegetative cover. However, on the remainder of the area, considerable erosion is now taking place, much of it a result of natural geologic processes. Some areas, especially on private land, are undergoing accelerated erosion because of such practices as careless logging and over-grazing. These kinds of erosion can be reduced by seeding grass on bare ground, managing grazing to prevent overuse, building waterbars on roads and trails, and building small check dams to catch silt.

While often carrying heavy sediment loads during peak flows, the waters of the King Range are pure and free from pollutants compared with similar streams closer to civilization. Estimated annual runoff is about 327,000 acre feet or 11.5 billion gallons. There are no impoundments on any of the streams flowing from the King Range.

Except for some use of ground water, there is no direct use of water in the area and runoff flows free to the ocean. In summary, protection of water quality, especially in regard to sediment reduction is more important than quantity of water production. The relatively short runs of water courses to the ocean also represent significant fishery and recreational values that are impaired by siltation where watersheds are eroding.

F. Wildlife

The King Range Area and its neighboring coastal waters contain eight different major types of wildlife habitat. These habitats support a wide array of resident, migratory and visiting animal species. Identified thus far are 31 species of reptiles, and amphibious, 75 terrestrial and marine mammals, and 258 bird species.

The wide variety of habitat present provides numerous niches, edges and ecotypes for all the species identified, including some animals classified as threatened under the 1973 Bureau of Sports Fisheries and Wildlife listing. These threatened species include the Spotted owl, Southern bald eagle, American peregrine falcon, and California brown pelican. There is the possibility of finding threatened reptiles and amphibians as more information is developed on species occurrence.

Spotted Owl - A Threatened Species

Many nonthreatened, but interesting species such as sea lions, seals and numerous birds presently provide a non-consumptive use in the form of observation and photography by recreationists and those with scientific interests.

Blacktail deer populations currently range from 10 per square mile in dense brush, up to 100 per square mile in open grassy woodlands. Yet harvest by hunters has averaged only 86 deer annually during the past five years. This has been the result of the area's rugged topography, dense cover and limited public access for hunters. Other species hunted to a lesser degree are Black bear, Valley quail, Blue grouse, Grey squirrel and Brush rabbit.

One animal no longer found here is the Roosevelt elk. This magnificent creature is still common north of the Oregon border, but was exterminated in the King Range many years ago. It appears that it could be reintroduced into King Range. Its preferred habitat is the mixed timber-grass type along the immediate coast.

Opportunities for improving wildlife habitat conditions include reduction of brush density to benefit deer, small animals and birds and minimization of disturbance, especially by motorized vehicles along the beaches. Other habitat values to be considered in the planning of other resource uses are preservation of dead and flat-topped trees as nesting sites for hawks and eagles as well as the estimated 300-400 acre old growth forest needs to sustain a pair of Spotted owls.

G. Fisheries

Most of the streams in the King Range are home to rainbow trout. Steelhead, silver salmon and King salmon use some of the same streams for spawning and to rear young fish. Many of the short coastal streams are too steep and shallow to be good habitat while some of the Mattole River tributaries, Honeydew and Bear Creeks especially, are very good habitat. Water quality in terms of purity and oxygen content was found to be generally good in the surveys that were conducted. Yet, logging on private lands has damaged many streams by reducing streamside cover, increasing water temperatures and depositing silt in the

gravel needed for spawning. Road construction, usually in connection with logging, is the greatest single source of silt. Many small waterfalls, and many log jams, some natural and some man-caused, block or hinder fish passage.

One of the best opportunities to improve conditions for fish is to remove barriers which block migration on some streams. Reducing erosion, of course, would help keep spawning gravels clean and pure. Requiring the use of the least disturbing methods of logging and road building and provision of undisturbed buffer strips along streams would be the most effective means of habitat improvement.

Fishing for adult salmon and steelhead in the streams within the King Range is not permitted by state law. However, the fish that come from these streams contribute to the ocean and Mattole River fisheries but the only on-site fishing is for resident rainbow trout and immature steelhead and salmon. Since most of the streams are difficult to reach, this is a limited activity. On the Mattole River, with only 600 salmon and 700 steelhead angler days estimated use, catches have been estimated by the California Department of Fish and Game at up to 400 salmon and 500 steelhead annually, a rate of .7 fish per day ...a very successful return in this type of angling.

Oceanic slopes along the King Range Coast are very steep and there is practically no gradual continental shelf, a depth of 200 fathoms being reached two miles offshore at one point. Point Delgada at Shelter Cove provides the only reef area. Together with shoal areas north and south of the King Range, it provides bottom fish habitat. Some 12 species of marine fish congregate near such shoal areas, rocks and kelp beds, including Albacore, Ling cod, Sole, Rock perch and Rockfish. Tide pools contain a variety of highly colored and interesting forms of marine life.

While there is some commercial salmon fishing off the King Range Coast, landing most of the catch at larger fishing ports, sport fishing is the principal activity operating directly from Shelter Cove. Launchings from this area account for some 13,000 angler days annually, principally in pursuit of Coho and Chinook salmon.

Tide pools are filled with fascinating creatures.

H. Recreation

There are many recreation opportunities in the King Range. Hunting and fishing have already been mentioned. Sightseeing, especially along the beach, is the most common activity. Off-road vehicle use, mostly on the beach, is growing. Also growing are hiking and backpacking both along the beach and on the trail networks. Since 1963, the Bureau has built four small campgrounds, containing 33 family units, 20 miles of hiking trails, and 13 miles of multi-purpose road to accommodate these uses.

The beach and the fish and animals along it are the major attractions for most people. The bold western slopes of the range also attract people because of scenic values, but most of that part of the area is too rugged for direct use.

During the past year, 56,400 visitor use days were estimated within the King Range study boundary. Of these, some 8,500 were spent at the camp sites and along the BLM trails within the Area. The great majority of visitor use, however, took the form of scenic drives into the area and its beaches or travel to Shelter Cove for sports fishing.

Based on current experience, a continued growth in recreation use at a rate of about 5 percent annually can be expected for King Range without further development. Establishment as a National Conservation Area with attendent publicity and facility development could cause a temporary jump to 20 percent growth for about five years, tapering to 10 percent thereafter, based on BLM experience. Longer run effect of fuel shortages is an unknown factor at this time.

In a regional sense, the North Coast area has many opportunities for extensive outdoor recreation through its numerous state and local parks, national forests, and the Point Reyes National Seashore and Redwood National Park. All, to some degree, offer sightseeing, wildlife observation, fishing, camping and hiking. Yet, approximately four million people reside within a five hour drive of the region's center, and another 16 million California residents are within a two day drive. Out of state visitors have been numerous along Highway 101 in the past. Use pressures make new areas and additional campground capacity desirable along the coast.

Camping at Wailaki Campground

The recreation value of the King Range and the desirability of its development for public use lies less in use curves than in its uniqueness for extensive outdoor recreation. In no other place on the U.S. Pacific Coast is found the coming together of heavily forested mountains and wild ocean beaches within a three mile strip. In the State government's "California Coastline Preservation and Recreation Plan," the King Range is cited as "an outstanding example of several geologic features and biotic communities." It is an area rich in recreation potential, awaiting decisions on the proper balance between development of more intensive use and preservation of the values it now contains. With use growing inevitably, only management and direction of this use can achieve that balance.

V THE PROPOSED PLAN AND MANAGEMENT PROGRAM

Inventory findings with analysis of current resource situations and quantitative and qualitative conditions and trends have been discussed in the previous section. The next step in the planning process consisted of projecting unrestrained potential capabilities for management of each individual resource followed by a rescaling of such potential capabilities to meet the real world constraints of policy and environmental requirements (e.g. buffer zones of trees and vegetation to be left along live streams) as well as economic feasibility of proposed practices.

This initial step of the "Management Framework Planning" phase of the BLM planning system provided the framework for arraying and comparing a number of technically, economically and environmentally sound proposals for development of each resource to weigh potential conflicts, complementary relationships and tradeoffs.

Conflicts became apparent as is usually the case in such planning. Timber harvest conflicted with primitive quality preservation in one area and with protection of the threatened Spotted owl in another. Complementary relationships surfaced. Watershed improvement contributed to fisheries rehabilitation. Domestic livestock grazing both competed with and aided wildlife habitat conditions in different areas at different intensities. Within recreation itself, vehicle use of beaches conflicted with hiking and wildlife uses.

The beach is a site of conflicts between uses.

Also, through this process some primary use zones became evident. Tentative boundaries of such zones, partially identified in resource inventories, came into sharper focus as information was evaluated. For example, the Shelter Cove Area clearly was dominated by a residential use, the beach area by various types of recreation. Other areas were heavily forested or involved in past logging. Others were found to have especially critical habitat for endangered wildlife species.

The King Range Act states "...the plan will indicate the primary or dominant uses which will be permitted on various portions of the Area." However, it goes on to provide that "...secondary or collateral uses may be permitted to the extent that such uses are compatible with and do not unduly impair the primary or dominant uses, according to a seasonal schedule or otherwise."

Following the Act's zoning instructions closely, a total of seven primary use zones with basically topographic boundaries were identified and delineated based on resource inventory and preliminary planning information. These seven zones are shown on Map 2 with more detailed treatment in the individual zone maps at the close of this report.

Primary use management objectives for each zone were subsequently used in weighing tradeoffs and compromises in conflict resolutions necessary to design a multiple use management program. We read the Act's definition of primary or dominant use quite literally, accepting other uses within a zone that were compatible or did not unduly impair the primary use. This provision permits considerable excercise of judgement. It proved wide enough to permit exclusion of cutting in recreational buffer strips and leaving dead trees for raptors in an intensive timber production zone, while permitting limited timber harvest in a wildlife habitat zone. Yet it sharply limited many actions in a primitive recreation zone.

Analysis and resolution of conflicts is a difficult process. For example, how does one weigh the value of a pair of threatened Spotted owls against the cost of reserving from harvest some 300 to 400 acres of mature timber to assure their survival? How much beach should be open to vehicle recreation and how much confined to foot travel? Should even the number of hikers be curtailed in some stretches to reduce wildlife disturbance? In analyzing these conflicts,

environmental, economic and social impacts of alternatives were considered. The environmental analysis and economic analysis developed concurrently with the plan to provide better decision making information are available as appendices to this report.

Broader guidance was sought in answering these and other questions through public consultation in a series of 17 meetings held throughout the north coastal area of California during the planning process. A summary of this public participation and interest is provided near the close of this report.

The plan which evolved through the foregoing process and the actions proposed to implement the management program to meet plan objectives are outlined in summary form in the following sections. Area wide and multiple-zone actions are discussed first followed by individual summary outlines of the action plan for each zone. Overall support activities such as land acquisition, transportation, communication, fire protection, administration, construction and cadastral survey as well as actions needed outside the King Range National Conservation Area are then identified and discussed.

Close coordination between all resource programs is essential. A summary of coordination is provided for each zone. To pull together a better overview perspective, major elements of the action plan and multiple use coordination requirements are summarized at the conclusion of this section.

As previously noted, this report provides a summary of the proposed plan and management program. Full, in-depth coverage of the plan, including cost and timing of implementation details is provided in the Coordinated Activity Plan, as referenced in the Appendices section.

A. Area—wide and Multi—zone Actions

Recreation

Contracts will be let for studies in the following fields:

(1) Historical significance - The study will include literature search and site surveys.

(2) Archeological values - The study will include surface sampling, test excavation, and analysis and publication of information.

(3) Natural history - The study will include identification of significant natural areas.

A site evaluation document will be prepared to summarize the findings of the various surveys.

The Bureau will contract for design of an interpretive program.

Regular patrols for protection of cultural values may be necessary depending on the information gathered by the survey and the amount of visitor use that occurs. A planned full-time administrator would do this at first.

In the event cultural sites are endangered by natural forces, visitor use, or development projects, they will be salvaged or stabilized, whichever is appropriate.

Some activities such as grazing or off-road vehicle (ORV) use may need to be restricted near archeological sites depending on the significance of the values found. Sites to be preserved will be identified with signs and protected with barriers.

Surveys can begin immediately, but capital for protection or interpretation can be expended only on publicly-owned lands.

Since many of the important sites are now on private lands, full implementation must be delayed until the necessary private lands can be acquired.

Cooperative agreements will be developed with various State and County regulatory bodies, if necessary, to obtain and assure public access for recreation use to suitable lands within the Conservation Area.

Wildlife

Habitat use by threatened wildlife species will be determined through a contracted study by the California Department of Fish and Game or California State University at Humboldt.

Raptor habitat will be preserved as follows:

(1) Preserve snags, flat-topped trees, or open-limbed live trees within a two-mile radius of any eagle or osprey nesting site.

(2) Prohibit any disturbance that will result in an increase in human or mechanized activity within a 1½ mile radius of any peregrine falcon cliff nesting site.

(3) Permit no logging, road construction, or intensive recreation development within 700 feet of any raptor nest, except road construction, logging, foot-trails and primitive camps can be permitted from August 1 to February 1 within the protection area as long as there is no disturbance to the nest or other trees used by the birds.

(4) Do not allow timber harvest, road construction or recreation development within 1/4 mile of Honeydew Creek, the Mattole River, Big Finley Creek and Bear Creek until the scope of use by bald eagle and osprey can be determined, except those activities in Zone 6 necessary to salvage timber damaged in the Finley Creek Fire of September 1973 or subsequent major fires.

(5) Reserve the old-growth Douglas fir timber stand in the Honeydew Creek headwaters area until surveys show the importance of habitat for Spotted owls, Accipiter hawks (Cooper's hawk, goshawk, and sharp-shinned hawk), osprey and bald eagle.

Information signs will be installed at various points in King Range to inform visitors about wildlife species which they may encounter.

Fisheries

Log jams will be removed on 35 miles of streams to make more of the streams available for spawning. The preferred method of removal is with hand labor. California Ecology Corps crews are the least expensive, if available. In most cases, the use of heavy equipment is impractical due to difficulty of access and the stream disturbance caused by such machines. Exposed stream banks will be revegetated in connection with log jam removal.

Minerals

Regulations to control mining activities are prescribed by Section 6 of the King Range Act, which recognizes that mining can be a valid activity in the KRNCA, but requires methods which are compatible with the recommended primary uses set out in the management program.

Existing procedures, contained in the Code of Federal Regulations (CFR), for filing a notice of intent to do oil and gas exploration activities and for compliance with appropriate terms and conditions to protect the environment are adequate to assure compliance with the objectives of the King Range management program. Also in the leasing procedures for oil and gas there are regulations which provide a basis for assuring compliance with the requirements of the management program. Similar requirements for environmental considerations are provided for other mineral leasing activity and for saleable or free use mineral materials like "sand and gravel." Copies of the applicable regulations, 43 CFR, Sections 23, 3109, and 4035, are provided in Appendix M, "Existing and Proposed Mineral Regulations."

Locatable mineral (e.g. manganese) activity requires new regulations that relate to prospecting, exploration and mineral development and patent. The Act authorizes the Secretary of the Interior to issue such new regulations for administering locatable minerals. A set of draft regulations has been developed to require an advance approval of plans for prospecting, exploration or mineral development so that the District Manager has overall control of resource management in the KRNCA. These draft regulations generally follow the principles of existing regulations relating to the leasable and saleable minerals. A copy of these draft regulations is also included in Appendix M to this report.

Any newly located mining claims or prospecting activity will be examined during the interim pending issuance of new regulations to assure that all prospecting, exploration and development are carried out consistent with the management program. The locating of "nuisance" claims for recreation cabins or residences will be promptly investigated and appropriate action taken to terminate

unauthorized uses. The claimant of all bonafide claims will be contacted and appropriate cooperative arrangements made for protection of surface resources.

The Bureau will work with the owners of the Bear Creek mining claims to develop a cooperative arrangement for rehabilitation of surface damage resulting from previous development of the claims. Such arrangements may involve mutual efforts or activity by the government.

Areas where resource conditions and management plans dictate no mining activity should be permitted will be protected through withdrawal from mineral entry pursuant to the 1872 mining law. Such withdrawals are discussed in the plans for the zones involved.

Lands

To preserve aesthetic values, the Bureau will restrict utility rights-of-way to existing locations as much as possible and promote underground installation. To do so, the Bureau will cooperate with utility companies in developing a plan to cover route location, underground vs. above ground location, future need projections, timber removal, site rehabilitation after construction and other pertinent items.

Future applications for such special land use permits as solid waste disposal sites in the event of residential expansion, and communication sites on higher peaks will be handled on a case by case basis. The same cooperative planning approach with applicants, as outlined for right-of-way applications, will be used to assure compatibility with the plan and protection of resource and aesthetic values.

Land acquisition, an integral component of the King Range program, while essentially a lands activity, is a support measure and will be discussed as such after first outlining the overall proposed resource management program.

B. Zone 1 — Punta Gorda

The primary use of this zone will be recreation. Most of the recreational activities will involve interest in the lighthouse and use of the beach by hikers and off-road vehicles. The following actions are planned which are compatible with this use.

Recreation - Acquire land along the beach, in the immediate lighthouse area, to include the area from the high tide line to the toe of the slope or to the existing road, whichever is further east. Full ownership and control will make it possible to manage use so that conflicts between hikers and vehicle users are minimized and to protect certain cultural features (e.g. Indian shell mounds).

Acquire access by easement within the proposed boundary expansion area between the Mattole River and Punta Gorda and the coastal strip connecting Punta Gorda to the main body of the KRNCA to the south.

Establish the following recreation use areas:

(1) Mechanized use areas (the beach area from the Mattole River to the lighthouse)

(2) A nonmechanized use area (along the beach south of the lighthouse to the northern boundary of Zone 2)

(3) Visual areas

(4) Parking and picnicking and camping areas near the mouth of the Mattole River

(5) Cultural areas

Develop a parking area with water and basic toilet facilities in the vicinity of the lighthouse.

Wildlife - Maintain the status of coastal inland habitat, tide pools, beach, and off-shore rocks, and improve non-consumptive uses of wildlife, specifically the identification of marine birds, mammals, and tide pool species.

Inform visitors through signs and direct contacts as to rules and regulations regarding marine wildlife species. Prohibit vehicles south of the Punta Gorda lighthouse to avoid harassment of marine mammals at Sea Lion Gulch.

Livestock Forage - Implement a grazing system permitting seasonal (June - Oct.) use of 117 AUM's. Control stock by fencing. Design fencing along the beach area to maintain scenic values.

The abandoned lighthouse at Punta Gorda

Coordination - Fencing sheep from wandering onto the beach is necessary to avoid conflicts with recreational use. Restoration of the old station fence will help preserve aesthetic values. Grazing system implementation will improve a deteriorating watershed condition caused by past overgrazing. Recreational restrictions on vehicle use will help protect tidal zone wildlife. Assistance from the California Department of Fish and Game will be sought for enforcement of marine wildlife protection laws. Cultural and historical preservation and interpretation will involve contacts with the Humboldt County Historical Society, Society for California Archeology and the Northwest Indian Cemetery Protective Association.

C. Zone 2 — West Slope

The primary use of this zone is recreation. The major objective is to retain the wild and scenic values of the steep mountainous slopes facing the ocean and to preserve the unique character of the beach. The following actions are consistent with this objective and will contribute to sound management of the resources of the zone.

Recreation - Acquire public access for recreation purposes to the following areas:

(1) Beach from mean high tide to the toe of the slope

(2) Spanish Ridge Trail

(3) Saddle Mountain Trail (formerly Coombs Road)

(4) Smith-Etter Road

(5) Coastal Streams

Access alternatives regarding land acquisition versus purchase of easements is discussed in the Support section on Land Acquisition from the perspective of all resource and management consolidation considerations.

Establish the following areas to enhance and maintain the natural character of this zone:

(1) Nonmechanized beach use area (entire beach area within the zone)

(2) Limited development area on the west slope to minimize disturbance to the primitive values that now exist

(3) Parking and primitive camping area

(4) Visual area (scenic to the beach and within the limited development area)

(5) Cultural area

(6) Road and trail use areas

Develop the following recreation facilities:

(1) Spanish Flat parking and primitive camping facilities

(2) King Crest trailheads

Acquire land at the beach end of the Smith-Etter Road to provide the above parking area.

Remove the unused nonhistoric buildings on Big Flat Creek and Shipman Creek and the corrals on Spanish Flat.

If required as a condition of acquisition, make arrangements for life estates with owners of cabins on Spanish Flat and remove the cabins when arrangements terminate.

Watershed - Implement the following watershed improvement measures:

(1) Provide cross drainage for 10.2 miles of abandoned roads and numerous skid trails. These would be in the form of waterbars and dips placed at intervals to prevent the accumulation of water.

(2) Outslope 5.6 miles of abandoned roads to prevent water accumulation.

(3) Revegetate 1,843 acres of areas exposed by logging with grass or woody plants, depending on soil type or other ground conditions.

(4) Rehabilitate slide areas where artificial or natural means are feasible.

(5) Stabilize 2,533 acres through improved grazing management.

Wildlife - The present quality of beach and offshore habitat will be maintained, a Roosevelt elk herd re-established, deer range improved, raptor cliff habitat maintained, and nonconsumptive uses of wildlife improved by implementing the following programs:

(1) Prohibit public motorized vehicle use along the beach and on west slope roads except the Smith-Etter Road, Telegraph Ridge Road and Saddle Mountain Road.

(2) Inform visitors about State and Federal regulations and other information regarding wildlife species through signs and brochures.

(3) With California Department of Fish and Game, re-introduce and establish a herd of wild Roosevelt Elk in the Big Flat area. The elk would be fenced during the introduction period and livestock would be temporarily excluded from the area used by the elk.

(4) Cooperate with CDF&G to increase the deer harvest in over-populated areas.

Fisheries - Log jams will be cleared to permit anadromous fish passage and improve the aquatic habitat on Horse Mountain Creek and Gitchell Creek, as discussed in area-wide decisions.

Livestock Forage - Implement a grazing system in this zone permitting seasonal (June - Oct.) use of 1105 AUM's. This number considers the use by wildlife in the area and the effect of grazing on soil erosion. The grazing system will require the construction of reservoirs and the development of springs in a manner which does not detract from the scenic qualities of the area.

Minerals - Withdraw all national resource lands and all subsequently acquired lands from mineral entry pursuant to the 1872 mining law to protect the fragile and unstable soils of this zone and avoid irreversible impacts on watershed and aesthetic values. The proposed withdrawal of this zone would affect 22,287 acres.

Coordination - The livestock forage, wildlife, fisheries and watershed programs are closely interrelated. Animal unit months necessary to sustain the resident deer herd have been estimated and reserved in calculating the capacity for sheep grazing. Restricting domestic grazing to the dormant season will eliminate competition for young

growth during a critical deer forage period. Water development for livestock will help to also distribute deer and reduce concentration damage. After elk are established and the herd grows, a reduction in sheep grazing is planned to offset this additional use.

Timber harvest has been excluded in this zone in recognition of the critical watershed problems on its steep, unstable slopes. Tree planting will be undertaken on some previously logged areas for watershed protection purposes, however. The grazing management plan will complement this work by improving conditions on the grassland portions of the watershed. Improvement of fisheries streams will be closely meshed with watershed improvements.

Recreation use is enhanced by wildlife resources and the plans designed to manage them. However, it also poses a threat to wildlife in the form of possible disturbance, harassment or game law violations. Close coordination with the California Department of Fish and Game will be maintained through both formal meetings and field contacts. Areas of such coordination include the reintroduction of Roosevelt Elk, stream surveys and improvements, and protection of marine animals through enforcement of State regulations.

Land acquisition will be needed to carry out a number of programs, especially watershed activities requiring capital investments. Most erosion problems predate State laws governing private land actions through water quality and forest practice standards. Also, the complexity of management involved makes ownership consolidation desirable.

D. Zone 3 — Shelter Cove

The primary use of this zone has been and will continue to be residential. The Bureau plans only very limited acquisition of private lands within the zone because of the extensive subdivision that has taken place and the many individual property owners. The Bureau's management objective is to provide recreational opportunities consistent with the primary use.

Black Sand Beach at Shelter Cove, the southern entrance to the Range.

Recreation - Implement the following improvement measures:

(1) Acquire public rights-of-way to the beach south of Telegraph Creek to Shelter Cove.

(2) Acquire lands for Black Sand Beach and Point Delgada parking areas.

(3) Establish recreation use areas as follows:

(a) Nonmechanized ocean beach use area (Little Black Sand Beach south to boat launch, approximately two miles)

(b) Mechanized ocean beach area (Telegraph Creek to Gitchell Creek, approximately three miles)

(c) Ocean fishing and observation area (Little Black Sand Beach south to boat launch, approximately two miles)

(d) Visual area (scenic background southeast of boat launch area)

(4) Provide recreation facilities

(a) Black Sand Beach parking area with information display board and restrooms

(b) North trail, using the existing Shelter Cove Ranchos Road, but closing it to public vehicle use

(c) South trail from Little Black Sand Beach along the edge of the bluff to Shelter Cove

(d) Point Delgada parking area

The existing boat launching area will continue to be privately owned and managed. Because nearly all lands in this zone are privately owned, limited acquisition of selected parcels or easements will be required before the proposed management program can be implemented.

Coordination - Carrying out the proposed recreational program would involve cooperation with private owners such as the operators of the resort and camping area at Shelter Cove; the Humboldt County Resort Improvement District in regard to planned access; the Humboldt Bay, Harbors, Recreation and Conservation District with its authority to enforce use controls between mean low and mean high tides; and Humboldt County regarding sanitation standards and public road access. The California Coastal Zone Conservation Commission will also be involved in clearance of BLM construction activities planned near the beaches.

E. Zone 4 — Point No Pass

The primary use of this zone is recreation. The major objective is to preserve the primitive qualities of this zone.

Recreation - This area will be managed to provide opportunities for solitude. Extensive recreation uses such as hiking and primitive camping will be encouraged, but no camp facilities will be provided within the zone.

The present trail system through the area will be realigned near the crest to provide better views of the ocean. Extension of the present trail system to permit connection with possible future trails in the proposed Bear Harbor State Park to the south of Whale Gulch, as well as alternative loop routes within the zone, will be studied and surveyed.

Self-guided interpretive walks will be developed between neighboring campgrounds and the Chemise Mountain segment of the present King Crest National Recreation Trail System.

Watershed - Since the present watershed condition is satisfactory, no specific program is required. However, rehabilitative measures may be required in case of fire or other disturbance of the vegetative cover.

Forestry - No logging will be permitted. This prohibition includes salvage logging of burned areas. However, limited actions to control insects or disease may be allowed if other commercial forest lands are threatened and the action will not significantly detract from the primitive qualities of the zone.

Lands - To protect its primitive qualities, the zone will be officially designated as a primitive area. All private lands in the zone are programmed for acquisition to prevent future logging, subdivision, or other incompatible uses.

Minerals - All national resource lands and all subsequently acquired lands will be withdrawn from mineral entry pursuant to the 1872 mining law. The total of 3,605 acres affected by this proposed withdrawal are basically nonmineral in character.

Coordination - No direct resource management program conflicts are evident. The basic coordination area will be between forestry and recreation managers in the event

a disease or insect epidemic were to become imminent within the zone, threatening surrounding forest lands. External coordination will be needed with the California Division of Forestry. This is covered in more depth within the section on fire protection support. Also, there will be need for coordination with the California Department of Parks and Recreation in regard to their plans for the recently proposed Bear Harbor State Park immediately to the south of King Range.

F. Zone 5 — Whale Gulch

The primary use of this zone is residential. Most of the lands are now owned by a number of private individuals and there are a number of full-time residents.

Lands - No acquisition is presently planned in this zone. However, if properties become available that are contiguous to national resource lands and useful from an ownership consolidation and resource management aspect to contribute to KRNCA objectives, some private holdings may be acquired. If private lands are acquired, they will be managed to prevent deterioration of the watershed and may be used for possible expansion of the Primitive Area in Zone 4.

Coordination - The major coordination needs will be external. Close communication will be maintained with the California Department of Parks and Recreation regarding development of the recently proposed Bear Harbor State Park immediately to the south of King Range as it relates to BLM development and management within the KRNCA. Communication with residents of Whale Gulch and the government agencies of Mendocino County and the California Coastal Zone Conservation Commission will be maintained in regard to avoidance of noncompatible use developments on private lands within the zone.

G. Zone 6 — Bear Creek

The primary use of this zone is intensive timber production. The objective is to maximize timber production while managing the forest and other resources on a sustained yield basis. Actions consistent with this objective will be taken as follows:

Forestry - Inventory data shows an annual allowable cut potential of 1.9 million board feet (Int. 1/8" scale) from BLM lands in Zones 6 and 7 combined.* This volume for the first five years will be taken from the Bear Creek Zone. Other projects planned for the first five years are:

(1) Planting trees on 440 acres. In addition to this, cutover private lands will be planted as they are acquired.

(2) Hardwood-brush conversion and planting 320 acres

(3) Precommercial thinning - 50 acres

(4) Multi-purpose road construction - 8.0 miles

(5) Timber sale road construction - 16.7 miles

Projects for planting, stand conversion, and road construction may be altered if significant fires occur.

*2.4 million board feet when both BLM and private forest lands are considered

Watershed - This zone has some of the most serious watershed problems in the KRNCA due to past logging and road building, primarily on private land. To improve present conditions and prevent further deterioration, the following measures will be taken:

(1) Provide cross drainage outsloping, seeding and fertilizing of 190 miles of logging roads and skid trails to stabilize 658 acres of seriously disturbed watershed now producing 13 acre feet of sediment annually.

(2) Improve drainage on approximately 6 miles of existing road by installing additional culverts and downspouts and seeding cutbanks.

(3) Rehabilitate small slide areas that can be treated by revegetation in conjunction with the correction of related road drainage problems.

(4) Reduce numbers of livestock on grasslands in the Paradise Ridge area to eliminate overuse resulting in loss of vegetative cover and soil erosion on 316 acres.

(5) Cooperate with owners of Queen Peak Mine to arrest erosion of the mining area by providing better cross drainage and revegetating disturbed areas.

Vegetative buffers will be left along streams during timber harvest operations and waste material will be end hauled in road construction to keep this material from entering streams in order to protect water quality.

Livestock Forage - Paradise Ridge is the only area in Zone 6 used for livestock grazing. It is presently deteriorating due to competition between livestock and wildlife. Livestock grazing will be reduced until range conditions have improved enough to support both wildlife and livestock without contributing to the previously noted watershed problem.

Wildlife - Wildlife habitat improvement and stand conversion projects in this zone will open more area for hunting, making the clearing of travel lanes unnecessary.

Hunting and nonconsumptive wildlife uses will be increased in the Queen Peak area by improving the existing jeep road. Since this road is also needed for timber harvest and recreation access, a multi-purpose road will be constructed.

A controlled burning and reseeding study project will be conducted in a 64 acre stand of dense, tall chaparral

brush and hardwoods west of Queen Peak. Safe, successful results could permit other heavy brush areas to be converted to better wildlife habitat and forage conditions.

Fisheries - Clear log jams blocking anadromous fish runs in the Bear Creek Drainage using the least damaging method, hand labor, through a source such as the Ecology Corps if available. Where possible, concurrently improve angler access along streams by removing barriers to foot travel.

Curtail stream sedimentation by close control of logging and road construction as well as the watershed rehabilitation previously outlined.

Recreation - Acquire public rights for recreation purposes through rights-of-way in the South Fork Bear Creek and Paradise Ridge areas and by cooperative hunting agreements in the Paradise Ridge area.

The following recreation use areas will be established:

(1) Road and trail area - Existing roads and trails in the Queen Peak-Paradise Ridge area will be left available for trail bikes and four-wheel drive vehicles except that areas which show serious erosion due to vehicle use will be closed and rehabilitated.

    A trail connecting Wailaki campground with Tolkan campground will be developed along Bear Creek.

(2) Camping areas - The present campground areas will be maintained at their present standard except for the development of a water system for Tolkan campground. Additional expansion is not necessary at this time. The potential recreation site at Nooning Creek will be reevaluated following salvage operations in the area burned by the Finley Creek fire in September 1973.

Buffer areas of 1/4 mile around recreation sites and 200 feet along recreation roads and trails will be established, in which timber harvest is restricted to selective cutting only and other activities are restricted to maintain scenic values in this zone.

Lands - As a support function, over 4,317 acres of private lands, much of it logged over, but capable of intensive sustained yield timber management, are planned for acquisition to consolidate ownership, facilitate forest management and permit important investments in watershed, fisheries and wildlife habitat improvement.

Coordination - Forest management within this zone is by definition a coordination process with other resource uses. Buffer strips of uncut or selectively harvested trees will be left along streams, along major roads, and around campgrounds to protect fishery, watershed and aesthetic values. Logging and road construction will be closely administered to keep erosion minimal. Timber harvesting generally improves wildlife habitat by increasing forage growth and edge effect. However, special care must be taken to leave nesting trees, snags and adjoining habitat for raptors. For example one Osprey and one Golden eagle nest have been identified in the Big Finley Creek-Mattole River area of Zone 6.

Mainline hauling roads will be designed to safely accomodate recreation travel.

The watershed improvement program will be closely meshed with grazing management and wildlife habitat improvement projects (e.g. the controlled burning study), as well as the fishery habitat improvement projects. Revegetation for soil stabilization will be done with species of value to wildlife where possible.

As a matter of outside coordination, the California Department of Fish and Game will be asked to institute antlerless deer seasons in the Area for the harvest of populations found to be in excess of carrying capacity.

H. Zone 7 — Honeydew Creek

The primary use of this zone is management of wildlife habitat. The major objective is to preserve and enhance wildlife habitat in the zone with particular emphasis on threatened species such as the Spotted owl.

Wildlife - Maintain the old growth forest habitat at the head of Honeydew Creek by excluding timber harvest, road construction, vehicle use or intensive recreation development until the extent of Spotted owl, Red-backed tree mouse, Osprey, Accipiter hawks, Bald eagle, Flying squirrel, Cougar and Black bear dependency on this forest habitat can be ascertained. Conduct a full inventory to verify presence and extent of habitat use by these species.

Improve hunting and nonconsumptive uses of wildlife in this zone by obtaining public access over the Smith-Etter Road. Provide physical access for hunter and wildlife observation use by completing 16 miles of 10 foot brush openings and 1¼ miles of forest trail opening 6 foot wide; opening 6 miles of road for four-wheel drive use and redesign of a mile of existing road for use by all classes of vehicles.

Reseed brush openings developed for wildlife observation with suitable forage vegetation.

Consider controlled burn for brush control and/or brush conversion reseeding on selected sites after evaluating the burning trial study planned in Zone 6.

Fisheries - Objectives and planned actions are similar to Zone 6. Log jams blocking anadromous fish passage on streams within the zone will be cleared, preferably by hand labor through the Ecology Corps, if possible. Fisherman access obstructions along streams will be concurrently cleared where feasible.

The watershed and forestry program will be relied upon to reduce sedimentation reaching stream courses.

Forestry - Timber inventory data shows an annual allowable cut potential of 1.9 MMbf (Int. 1/8" scale) from BLM lands in Zones 6 and 7 combined. However, no timber sales are planned for the first 5 years in Zone 7 so wildlife indigenous to old-growth stands may be inventoried to determine the presence and extent of habitat use. This inventory will provide additional management guidelines for the various resource activities.

Timber management projects in Zone 7 for the first 5 years will be:

(1) Hardwood - brush conversion and planting - 80 acres.

(2) Multi-purpose road construction - 2.5 miles.

Plant trees on cutover private lands as they are acquired.

Watershed - To improve present conditions and prevent further deterioration the following measures will be taken:

(1) Provide cross-drainage, outsloping, seeding and fertilization of 156 miles of logging roads, skid trails and other roads now constituting 535 acres of severely disturbed watershed.

(2) Reestablish forest on 274 acres of forest soils converted to grass by logging, burning and repeated sheep grazing, fencing out this area from grazing during the reforestation project.

(3) Improve drainage on approximately 16.4 miles of maintained roads by installing additional culverts and downspouts and seeding cutbanks.

(4) Rehabilitate and restore vegetative cover on 2.4 miles of abandoned roads.

(5) Rehabilitate small slide areas which are feasible for treatment.

Recreation - Public rights will be acquired for recreation uses on the Smith-Etter Road, including the part outside the King Range boundary, the Telegraph Ridge Road, and for extension of the Lightning Trail down Honeydew Creek.

Cooperative agreements will be developed to provide public hunting on private lands in the Bear Trap Ridge and Moorhead Ridge areas.

Existing roads will remain open for recreation vehicle use. However, if a road is or becomes seriously eroded, it will be closed and revegetated.

The extension of the trail down Honeydew Creek is a future possibility.

Recreation area facilities to be considered are toilets and garbage containers at areas of concentrated use.

Buffer areas 200 feet wide will be established along recreation roads and trails in which timber harvest is restricted to selective cutting only and other activities are restricted to maintain scenic values.

Hiking the King Crest Trail

Lands - Approximately 2,912 acres are planned for acquisition in this zone to consolidate ownership and provide more efficient resource management while permitting the type of investments needed to achieve plan objectives. Most of the lands to be acquired are logged over, often brush covered, with potential for intensive forest management or wildlife habitat conversion while correcting critical watershed problems.

Coordination - The basic internal coordination step is between the forestry and wildlife programs, with forestry delaying cutting in the zone for five years to allow completion and evaluation of an intensive wildlife inventory in the old-growth forest habitat. Some road and trail development will similarly be postponed. Other coordination will involve the complementary interrelationships of watershed revegetation designed to also increase wildlife forage and wildlife brush conversion projects also capable of improving watershed values. Fishery improvement will similarly rely on actions taken in the forestry and watershed programs.

Primary external coordination will be with the California Department of Fish and Game. Cooperation will be sought in obtaining the proper hunter harvest of deer to maintain populations within the area's carrying capacity.

I. The Support Activities

This section summarizes the actions that are needed to support implementation of the resource management plan. In some cases, it provides more comprehensive treatment of support actions touched upon briefly in the preceeding zone summaries. Other support activities, not previously identified, are also treated in this section.

1. Land Acquisition

The King Range Act authorizes acquisition of private lands that are "desirable for consolidation of public lands within the Area in order to facilitate efficient and beneficial management of the public lands or otherwise to accomplish the purposes of this Act."

This provision traces back to the 1961 recognition by Congressman Clem Miller of the desirability of transferring widely scattered tracts of public land throughout Humboldt County to private ownership in exchange for private lands within the King Range, the central focus of BLM administration in the county with 56 percent public land ownership. This consolidation effort, originally sought in Miller's H.R. 6793 during the 87th Congress, the predecessor to the present Act, was aimed at improving management efficiency for all owners.

The land acquisition program was actually begun in 1972 when it became apparent that activities on private lands such as additional subdivisions and logging were imminent. Such actions threatened to detract significantly from the values of the Area and limit management opportunities.

Criteria were established for the acquisition program establishing eight priorities. The highest priority was given to acquisition of those private lands near the ocean on which logging or subdivision appeared to be imminent. Although the acquisition program is directed toward the higher priority tracts, some necessary but lower priority lands are being acquired from owners willing and able to quickly consummate exchanges.

The land acquisition effort is an especially critical support activity for implementation of the proposed King Range National Conservation Area management program as much of it relies heavily on consolidated management efficiencies and BLM tenure to permit capital investments in land management.

With 3,668 acres of private lands acquired through March 1, 1974, there are now 20,104 acres of privately owned land remaining within the boundaries of the KRNCA, as compared to a total 54,199 of all ownerships. The acquisition program is scheduled to be essentially completed by the end of fiscal year 1978, when a total of approximately 6,500 acres will remain in private ownership. These remaining private lands will be primarily concentrated in Zones 3 and 5. Any significant change in the acquisition program will require extensive revision in the plan due to the involvement of resource management investments which require assured land tenure.

A summary of the acquisition program by year is given in Table 2. Acquisition will largely be accomplished by exchanging scattered national resource lands in Humboldt County outside of the KRNCA for private lands within the Area. Exchanges are made on the basis of equal values; however, cash payment may be made by either party to equalize values, provided that the equalization payment may not exceed one-third of the appraised value of the more valuable parcel. In total, national resource lands worth approximately $7,500,000 are expected to be exchanged for private lands worth approximately $6,650,000, with the difference being made up by cash payments to the government.

Table 2

Fiscal Year	Acres to Be Acquired	Acquisition Costs* LWCF **	BLM	Total Acquisition Costs
Through 1973	1,434	$374,000		$374,000
1974	6,007	394,000		394,000
1975	8,511	221,500	$31,000	252,500
1976	820	109,000	25,500	134,500
1977	214	94,500	37,000	131,500
1978	209	-	65,000	65,000
1979	- ***	-	55,000	55,000
1980	- ***	-	30,000	30,000
Total	17,195	$1,193,000	$243,500	$1,436,500

*includes administration, appraisals, equalization payments, purchases involving $284,000, $570,500, $182,000, $400,000, respectively. A 5% annual cost inflation factor is included.

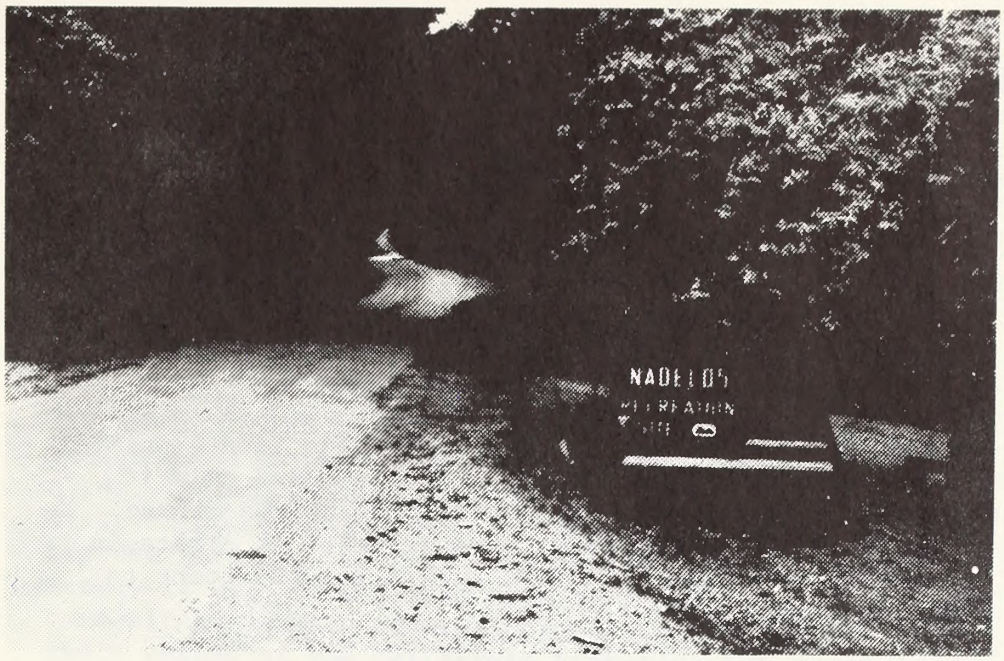
**Land and Water Conservation Funds are being provided to cover tracts with significant recreational values that have been cleared through the Bureau of Outdoor Recreation.

***No acres planned at this time, but limited funding is programmed to cover any carryover and reappraisal or re-negotiation costs due to schedule delay.

As indicated in Table 2, total land acquisition costs fall within the $1.5 million ceiling set by Public Law 91-476. Further information and analysis of the acquisition program are included in the Coordinated Activity Plan document and Appendix C, Land Acquisition Analysis.

2. Transportation

A road and trail system is necessary to implement portions of the management program. The major existing roads and trails, and those identified as being needed within the first five years the plan is in effect, are shown on the zone maps at the close of this report. Precise locations of the proposed roads have not been surveyed and marked on the ground, so some changes in proposed routes may be required after further engineering and environmental studies are made.



Narrow, quiet roads lead the traveler
through the King Range

Presently there are 50 miles of existing road within the King Range. While 60 percent of this total mileage is currently under BLM control, only 13 miles meet present BLM standards. There are 48 miles of trail now traversing the area, primarily constructed by BLM.

Projected additional road construction needs total 37 miles with varying amounts of improvements needed on nearly 30 miles of the existing road system. Some 49 miles of new trails and improvements on 28 miles of existing trails are planned to complete the trail system.

More detailed treatment of the road and trail system is provided in Appendix H, the Transportation Plan.

Protection

Fire - Wildfire is an ever-present danger. Even as this plan was being written, over 13,000 acres of land, including 3,600 acres of BLM land, were burned in one fire in the area. Protection is provided by the California Division of Forestry under a long-standing contract. Our study of fire protection needs analyzed the existing situations, the risks and hazards anticipated when the plan goes into effect, and the fire protection measures possible. A major feature of the resulting fire plan requires the BLM District Manager's approval prior to using mechanical equipment on the steep damageable slopes of the west-side area in Zone 2 and in the Zone 4 primitive area. Mechanized equipment will be used only in extreme emergencies and then with close on-the-ground supervision. Helipads will be constructed at strategic points to permit quick initial aerial-ground attack to stop fires while small.

Law Enforcement - The Mendocino and Humboldt County Sheriff's departments are the primary law enforcement agencies for their respective jurisdictions within the King Range National Conservation Area. Wardens of the California Department of Fish and Game enforce fish and game laws in the Area. The California Highway Patrol has a primary duty of traffic law enforcement on State Highways but could respond in an emergency if a Sheriff's office requests help.

Because of its remote location, there are currently no regular sheriff patrols within the King Range. Response times from various sub-station points range from 30 to 90 minutes. As recreational use increases, some form of regular sheriff's patrol will be needed. If law enforcement authorities are granted to BLM under the pending Organic Act for managing national resource lands, a program of training some BLM personnel assigned to KRNCA in law enforcement will be considered as a future step.

Search and Rescue - County sheriffs in California are designated as search and rescue coordinators in each county. Both Humboldt and Mendocino counties have

organized search and rescue units as well as a cooperative agreement for joint operations. Designated personnel assigned to KRNCA will be trained in search and rescue techniques to be available to provide assistance in such operations within the KRNCA.

4. Communications

In a time when instantaneous world-wide communication is possible, this kind of service is not available in remote areas such as the King Range. An analysis was made of communication needs, taking into account possible search and rescue operations and long-range management needs. A radio system will be installed to link the Ukiah District headquarters, the proposed King Range administrative site and the personnel assigned to manage the area. It will be designed to also permit ready two-way communications with County Sheriff's radios and the radio system of the California Division of Forestry.

5. Administrative Sites

The Ukiah District Office is over 100 miles from King Range. To effectively manage the intensity of development proposed in this plan, it will be necessary to station personnel closer to the area. Considering travel routes and availability and suitability of sites, as well as proximity to primary management activities, two sites will be acquired and developed for administrative use.

The main administrative site will be constructed in the vicinity of Thorn Junction on the Shelter Cove Road and will be managed by a full-time resident administrator. A seasonally manned visitor contact facility will be developed as a part of the administrative headquarters and will contain exhibits and displays depicting the history, pre-history, natural history and multiple uses of King Range. This facility will serve to provide information to visitors concerning the King Range Area, its resources and management, outdoor recreational opportunities, applicable laws or rules, and any special precautions for safety due to prevailing conditions. Educational publications pertaining to King Range and natural resource management will also be available for sale or free distribution.

The administrative site will also house equipment for maintenance of roads, trails, and recreation facilities and fire suppression equipment in support of its function as resource management headquarters.

The smaller administrative site at Honeydew will be manned during the visitor use season and be designed to function as an unmanned station after hours and during the off season.

6. Cadastral Survey

Effective management requires that the external boundaries of the King Range National Conservation Area and internal property boundaries be located accurately and marked clearly. Qualified surveyors will be included among the personnel assigned to the area. Two surveying crews will be occupied for a year or more to do the necessary boundary locations and marking.

J. Actions Needed Outside of the KRNCA

Onshore - Access, parking, picnic and camping area, and management control needs from the county road on the Mattole River south to Punta Gorda and from that area to the northern boundary of the major portion of the present study area have been discussed in previous sections covering boundary change recommendations and the proposed plan and management program for Zone 1. Similarly, external access needs have been discussed by zone and administrative site requirements have been presented as a support activity.

Offshore - A most important area in terms of resources, recreational values, and close correlation with the achievement of management objectives for the King Range program lies immediately westward of the proposed King Range National Conservation Area boundary. Yet, through jurisdictional complexities it cannot be annexed to the KRNCA. It is an area approximately 30 miles in length beginning at mean high tide, proceeding westward across the beaches and pools of the intertidal zone, through the surf and on past outlying rocks into the Pacific Ocean to the limits of clear weather visibility. This area, its sensory qualities, and the forms

of life it supports comprise perhaps the outstanding human attraction to visitors of the King Range Area.

The key to its management lies in a web of jurisdictions requiring cooperation and coordination almost equal to the biological dependencies found in its waters.

The wildlife resources of the shore and ocean have already been listed briefly and incompletely. Agency controls have been discussed equally briefly in regard to management coordination within the zones abutting the ocean. A summary of the types of jurisdiction present, their implications for resource management and intentions for BLM cooperation to achieve its management program objectives is in order at this point, beginning at the westernmost boundary of the KRNCA.

The northern 87 percent of the intertidal zone between mean high and mean low tides is under jurisdiction of the Humboldt Bay Harbor, Recreation and Conservation District by authority of the State legislature. The southern 13 percent of the intertidal zone in Mendocino County is still controlled by the California State Lands Commission. The HBHRCD has studied the proposed BLM plan for the King Range and plans to zone and control vehicle use of the lower beach identically with BLM's management of the upper beach.

Protection of marine mammals and other wildlife along the beach and tidal zone is by the California Department of Fish and Game. BLM will look to this agency for wildlife protection and enforcement in the area.

The mean low tide area to the three mile limit is controlled by the California State Lands Commission in regard to the ocean floor and its subsurface resources. Beyond the three mile limit, the Outer Continental Shelf Office of BLM in Los Angeles administers the ocean floor and its subsurface minerals. A check with this office indicated some undetermined potential for oil and gas as well as deposits of Phosphorite, Manganese nodules and, near river mouths, potential placer gold. The U.S. Army Corps of Engineers administers navigational matters and associated construction in the area.

Federal agencies and the State of California are required by law to file environmental impact statements and environmental impact reports, respectively, in advance of any significant

operations such as oil and gas leasing or ocean floor mineral recovery. The proximity of the KRNCA and its objectives would be an important factor in such analyses.

The U.S. Bureau of Sports Fisheries and Wildlife, on December 18, 1973 applied for withdrawal of unreserved islands, rocks and reefs from Oregon to Mexico preparatory to establishing a California Island National Wildlife Refuge. A number of these rocks are located off the King Range.

Finally, the California Coastal Conservation Zoning Commission, by state law, has considerable powers for controlling development along the State's coastline.

K. Summary Overview of Proposed Plan and Management Program

Presented by seven zones, eight resource categories, six support functions, and numerous coordination factors, it is difficult to obtain a sense of the overall management program that has been designed for the King Range National Conservation Area. Some summary generalizations and simplifications may be of value at this point:

-It is a zoned plan, developed around seven primary or dominant use zones. Yet, it is a multiple use plan, not only in the summation of the zones but within zones. Secondary uses are permitted that do not unduly conflict with primary use objectives. Through closely coordinated management many secondary uses can be accommodated.

-Tabulating the seven zones, one is devoted to intensive forestry, one for wildlife management and protection, three are recreational ranging from primitive through extensive to relatively intensive type use. Two are residential zones recognizing existing uses and their compatible limits.

-Yet each zone is to be managed for a number of important secondary uses. The forestry zone, for example, has important watershed, wildlife, fisheries and recreational programs. Watershed actions, livestock forage, and fisheries improvements are in fact each prescribed as secondary actions in three zones. Actions that are primary objectives in one zone often appear as strong

secondary programs in a neighboring zone. Minerals comes up with two proposed withdrawals, but five zones are left open to mineral entry under careful controls.

-In terms of resource use outputs within five years of implementation, the proposed program will produce 1.9 million board feet of timber annually, yield 1,222 animal unit months of sheep grazing, clear 47 miles of blocked fisheries streams, reintroduce the Roosevelt Elk to the area, provide protection to numerous threatened or scarce wildlife species while studying their distribution and habitat needs, restore nearly 1,800 acres of seriously disturbed watershed thus improving much more of the adjoining watershed, and provide a wide range of high quality extensive recreation for some 97,000 visitors annually.

-These actions and outputs are not implemented as a multiple use showcase, however. Each has its place in achieving the KRNCA objectives. All are closely interrelated and coordinated to minimize conflicts and take advantage of complementary opportunities. For example, livestock grazing, watershed, wildlife and fisheries programs are related well beyond tradeoff and conflict considerations. All of the involved resource specialists worked together very closely in planning and program design. Animal unit month forage needs for both sheep and deer were estimated and management designed to allocate the carrying capacity. Water placements for livestock will redistribute deer from over-used areas aiding the watershed program. Watershed plantings will often be done in species valuable for wildlife forage. Grazing and wildlife manipulation for watershed purposes contribute to cleaner water in fish spawning streams. An endless list of coordination could be covered on any set of two or more resource programs for the King Range.

-To this coordination must be added the support activities of land consolidation through 17,000 acres of acquisition, mainly through exchanging out of extremely scattered tracts; completion of the second half of an 87 mile road and 97 mile trail system; a protection plan for fire suppression, law enforcement and search and rescue; a new adequate radio communication system where none was available; and finally survey of all property boundaries.

-External cooperation and coordination sketched in briefest outline involves two counties, four State agencies, two regional commissions, four Federal agencies and two local coordinating committees.

VI THE COSTS TO THE UNITED STATES

A. Budget Costs

Table 3 displays King Range program total budget costs to the United States experienced through the current fiscal year, programmed costs for FY 1975, and a projection of total expected costs for the first five years of full program operation, FY 1976-FY 1980.

In projecting future costs an annual cost inflation rate of 5 percent for manpower and administrative costs and 10 percent for project and construction costs has been used based on current experience.

Table 3

Costs and Manpower to Carry Out Plan by Year
(all costs in $1,000's)

Fiscal year	Administrative & Management	Acquisition[1]	Construction[2]	Total Cost	Equivalent Man-Years
1972	$ 50	$ 30	$ ---	$ 80	4.4
1973	194	344	---	538	11.8
1974	78	394	---	472	8.0
1975	143	252	---	395	10.0
1976 thru 1980	3,139	417	1,887	5,443	84.0
Totals	$3,604	$1,437	$1,887	$6,928	118.2

1/ $1,193,000 through Land and Water Conservation Fund for acquisition of lands having significant recreational values. Remaining $244,000 via BLM appropriation.

2/ Construction costs include only those connected with major capital improvements such as roads and trails, recreation sites, and buildings. Costs of projects closely related to management, such as fences and water developments, are included within the administrative and management costs.

As indicated in Table 3, the $1.9 million estimate for construction costs to date through the next five years falls well within the Act's construction expenditure ceiling of $3.5 million. While much of the basic construction needed is scheduled for the initial five year period, there is an ongoing need for road and trail construction, some recreation facility expansion and a limited continuance of resource project work beyond this point. Such construction is currently estimated at $2.3 million bringing total construction to $4.2 million. Although this estimate is considerably above the Act's present construction ceiling, it would be premature to seek changes in a ceiling that will not be reached until a point five to ten years in the future.

Other than the future construction costs beyond the initial five years of the King Range program, expenses will be basically for operation and maintenance. These O&M costs beyond FY 1980 are estimated at $400,000 annually.

Table 4, which follows on the next page, provides a breakdown of costs and manpower needs for the initial five years of full program operation, broken down by major resource programs.

Table 4

SUMMARY OF FY 1976-1980 FIVE YEAR PROGRAM BY ACTIVITY
BASED ON FUTURE COST ESTIMATES 1/
($1,000's)

Activity	Manpower Administrative Costs	Project Costs	Construction Costs 2/	Total Costs	Manpower Needs MM
Lands	663	--	--	663	106
Minerals	10	6	--	16	6
Timber	85	111	414	610	74
Livestock Forage	11	56	--	67	7
Watershed	74	743	--	817	38
Wildlife	170	377	--	547	88
Recreation	275	97	488	860	197.5
Support (Cadastral, Communication, Protection, Road Maintenance)	375	198	--	573	175
Road Construction costs allocated to activities other than timber	--	--	414	414	23
Administrative Site, Visitor contact facilities, General Supervision, and Administration	305	--	571	876	125
Totals	$1,968	$1,588	$1,887	$5,443	839.5

1/ The annual inflation rate was considered to be 5% for personnel and administrative costs and 10% for project and construction costs. Inflation percentages were compounded beginning with the base 1974 cost estimates and assuming the program would begin FY 1976.

2/ Construction costs include only those items in the buildings, recreation and road construction programs.

B. Non-Budget Costs

There are basically two nonbudgetary or opportunity costs to the United States in the proposed KRNCA program. One involves the Federal allowable cut capability foregone in the exchange program. This is basically a real cost to the United States. The second, is the difference between a maximum resource and revenue producing program, within basic environmental constraints, and the balanced multiple use program proposed for the KRNCA with all of its tradeoffs and amenities. The opportunity or nonbudget costs here are essentially theoretical. Most are present in all BLM planning and management programs.

The scattered, selected tracts of timber outside the KRNCA planned for exchange into private ownership have a standing volume of 60 to 80 million board feet depending on the parcels finally selected by the owners of the tracts obtained within the KRNCA. While a total of 100 million board feet will be acquired within the King Range, 90 million board feet of this lies on the steep, damageable west slope and is reserved from cutting under the plan. However, the 10 million board feet of harvestable timber and considerable immature acreage that will be acquired in the eastern portion of the KRNCA are estimated to provide an addition to the BLM allowable cut of .5 million board feet, annually. In net effect, a contribution of .9 to 1.4 million board feet of annual sustainable Federal timber harvest valued at $90,000 to $140,000 annually, is foregone from inclusion in future allowable cut calculations. The benefits of this investment are evident in the previously presented discussions of the west slope zones of the King Range.

In the case of resource production foregone due to multiple use management decisions opting for less than maximum production alternatives, timber is the only marketable resource with significant dollar values involved. Under full production consistent with minimum conservation standards, an annual allowable cut of 5.8 million board feet could be sustained within the King Range. Under the plan a total of 2.4 million board feet can be produced annually (1.9 million board feet from present national

resource lands plus .5 million board feet from operable private forest lands after acquisition). The net difference of 3.4 million board feet is valued at $204,000 in stumpage revenues foregone annually. This opportunity cost provides protection of critical watershed, streamside buffers to protect fisheries, and other buffer zones and modified harvest methods to maintain aesthetic, recreational and wildlife values.

VII ECONOMIC EFFECTS ON LOCAL COMMUNITIES & GOVERNMENTS

The King Range Act requires that the management program include an analysis of the economic effects of the program on local communities and governments. Our analysis indicates that the direct economic impacts will principally be limited to a relatively small area in southwestern Humboldt County and northwestern Mendocino County. The communities within the primary influence zone are all small, rural, and unincorporated. They include Petrolia, Honeydew, Ettersburg, Whitethorn, and Shelter Cove with a combined estimated population of 1,215.

The program will also have a more limited effect on a larger area of southwestern Humboldt County, roughly described as the area south of Ferndale and Fortuna and west of U.S. Highway 101. Communities within this area will be most affected by an immediate increase in employment as a result of increased timber harvesting from the public lands that will become private as the result of exchanges and also through increased recreational tourism.

The additional employment resulting from this program due to timber harvest, resource management, and construction projects within the KRNCA over the first five years will be about 40 to 45 jobs. Most of these will be limited to the summer season. The total impact on employment in Humboldt County, including both direct and indirect effects, will be the addition of 54-80 jobs each summer for the first five years of the program. After the first five years, the initial surge of construction projects will be completed and employment from this source will decline. However, this loss will be at least partially compensated for by the additional tourism that will be generated.

The employment impact on agriculture will be negligible. There will be approximately the same amount of forage available after implementation of the program but management costs may increase because of restrictions on season of use.

A slight reduction in residential construction within the KRNCA will have a very minor negative employment impact. However, outside of Shelter Cove, most structures are small

and owner-constructed having little employment impact. This loss will be compensated by the anticipated increased building outside of the Area.

By the fifth year of the management program, there will be an anticipated 97,000 visitors (145,000 visitor use days) annually to the KRNCA. This represents an increase of 47,000 annual visits (70,000 visitor use days) over the number which is expected without the plan. The increased visitors will be largely recreation oriented. This increase will result in an additional estimated $237,000 being spent within the southwestern Humboldt County area by recreationists and tourists.

The greatest short-term employment will result from the land exchanges which will lead to the accelerated harvesting of 60-80 million board feet of timber from the scattered former public lands outside of the King Range which would probably not otherwise have been accessible for harvesting in the near future. As many as 560 jobs, direct and indirect employment, could result from this harvest in each of the next five summers. Most of these jobs will be located outside of the southwestern portion of Humboldt County, but still within the county. The number of additional jobs will drop off sharply after this harvest is completed. Without the exchanges, this timber would be harvested over a much longer period of time with far fewer number of total jobs.

However, there is loss of .9 to 1.4 million board feet sustained yield annual production in the future from the BLM forestry program in Humboldt County arising from the amount of nonharvestable forest land in King Range secured through exchange for the harvestable tracts discussed above. Compared on the same basis used in evaluating the harvest effect of the scattered tracts, this produces an offsetting reduction of approximately 50 seasonal jobs per year over a number of decades.

Reduction of the five percent of sales value paid the counties on BLM timber sales would amount to only $7,000 per year in county revenue foregone.

It is important to note that nothing in the program produces a reduction in current employment. There is presently little timber harvest, public or private, in the King Range and the scattered exchange tracts have no present role in the BLM timber sale program county-wide.

The land acquisition program will have an economic impact on local governments because of the loss of tax revenues as private lands become publicly owned. The assessment on the properties planned for acquisition is approximately $554,000. The annual tax revenue from this property is approximately $44,000. The taxes on land transferred to private ownership will in part compensate for the revenue loss.

A measure of the impact of removing this property from the tax rolls is the percentage of the assessment of the properties to be acquired by the government of the total assessment in the districts involved. The districts involved are the Mattole Union Elementary District and the Southern Humboldt Unified School District. The acquisition program could remove $360,100 (6.8%) of the assessment in the Mattole Union Elementary District. This may be compensated for by private acquisition of national resource land in the district. The probable assessment of national resource lands that will become private as a result of exchanges in the district is $593,000. Clearly, there is a potential for a short-term net increase in assessment in the district through KRNCA land exchanges. Most of this selected land has timber stands which would be logged within three to five years after it is exchanged into private hands. Its assessment after removal of timber would be about $17,000. This would mean that if all of these selected national resource lands in the Mattole Union Elementary School District are transferred to private ownership, and logged, the district will lose 6.5% of its property assessment through the acquisition program. Timber taxation in California is by advalorem property tax with no offsetting yield or severence taxes at this time.

This loss of assessment is not likely to be particularly critical because the tax revenue to the district could be made up by a tax rate increase of $0.094 per $100 of net assessment. The resulting tax rate would be $1.475. This would still be the second lowest elementary school tax rate in Humboldt County. It is significant too that the total property tax rate in the tax district where the BLM would acquire the land has the third lowest rate in Humboldt County.

The southern part of the KRNCA and the adjacent areas are in the Southern Humboldt Unified School District. This is a

very large district with a total assessment of over $22,000,000. The acquisition program would reduce this assessment by about $194,000 (0.9%).

The effects on total assessment in the two special districts in the southern area are also small. Acquisition in the Whitethorn Fire District will reduce assessments by 1.8%. In the Resort Improvement District No. 1 (Shelter Cove), the reduction in assessments will be less than one percent.

The anticipated loss in tax revenues resulting from the acquisition program will be at least partially offset by the increased tax assessments made possible by the expected rise in property values for private lands within or close to the National Conservation Area. The magnitude of the rise in property values cannot yet be determined, but experience elsewhere indicates that the establishment of an area of national significance invariably results in increased property values within or adjacent to the area.

Facilities for consumer services within the immediate vicinity of the KRNCA are quite limited. People within this area typically spend a large portion of their income at the population centers such as Eureka, Fortuna, and Garberville. This may limit economic benefits within the more immediate vicinity because it is not clear whether the increased demand resulting from the program will be sufficient to justify development of new private facilities.

No significant increase in costs to the county governments is foreseen as resulting from implementation of the KRNCA plan with the possible significant exception of road improvement costs. There are three basic county road routes serving as entry ways into the King Range. All are likely to require partial improvements within ten years and more extensive upgrading of standards within twenty years in order to safely handle the projected traffic loads expected under use projections for the KRNCA.

Even without a King Range Program, the Shelter Cove Road will need some improvements during the next ten years. The Honeydew and Petrolia routes would not appear to need upgrading under use projected without development of the KRNCA program. With the program they would require partial upgrading in ten years and more extensive improvements in standards within twenty years.

Road construction costs are expensive, difficult to forecast over long periods and are better evaluated by county highway engineers. There are alternatives to increasing road standards that are logical to consider at a future date when trends are better established. One is the use of some form of public shuttle service along the lines now being used in Yosemite National Park.

There will probably be an increase in calls to the sheriffs as greater numbers of recreationists use the area, but when viewed in the context of the sheriffs' county-wide responsibilities the impact will be very small. Need for a scheduled sheriff patrol in the KRNCA, requiring an additional officer, is a future probability. The mitigating measures called for in the protection section of the plan limit this cost to the county. The county facilities for transportation and solid waste disposal are adequate, at least for the program's initial years. Other types of county services are not expected to be affected by the plan.

VIII PUBLIC PARTICIPATION AND INTEREST

Section 3 of the King Range Act provides that public and private assistance shall be used to prepare a management program for the area. Formal public involvement began with the formation of two advisory committees. One committee was composed of members of the community and represented such interests as local landowners, ranchers, businessmen, recreationists, and conservationists. The other committee was composed of representatives of public agencies directly or indirectly involved in land use. The agencies were:

U. S. Geological Survey
U. S. Bureau of Sport Fisheries and Wildlife
U. S. Bureau of Outdoor Recreation
U. S. Soil Conservation Service
California Department of Water Resources
California Department of Fish and Game
California Department of Parks and Recreation
California Division of Forestry
Humboldt County Board of Supervisors
Mendocino County Board of Supervisors

A total of eight meetings were held with these coordinating committees at numerous stages of plan development. Throughout the planning process the Bureau has been in contact with the California Regional Water Quality Control Board, Northern Regional California Coastal Zone Conservation Commission, and Humboldt Bay, Harbor, Recreation and Conservation District.

The King Range plan was also presented in draft form at a meeting of the BLM California State Advisory Board in a Sacramento session attended by members of the public and other agencies.

A total of eight local area public meetings were held to present the Bureau's management recommendations and solicit comments and recommendations from the general public. Although attendance was not unusually large, many who attended these meetings expressed strong feelings on specific issues, especially in regard to vehicle use along the beaches of King Range. The public was able to make known their views orally or in writing.

As a result of the public meetings and coordinating sessions, a total of twelve changes in the initially proposed plan were made. A listing of these adjustments is provided in Appendix F, "Summary of Public Participation and Interest."

IX THE CHALLENGE

The King Range Act may have a significant influence on land management far beyond the King Range itself. This is the first time an area has been set aside by special legislation to be managed for a broad range of balanced resource uses rather than a single purpose use such as recreation or wilderness. The designation as a National Conservation Area emphasizes its importance and focuses public, agency, and Congressional attention on the Area. The publicity and public participation which were a part of the planning process means that there is now a general awareness of the values, problems, and potential of the Area. Because of this, many people with varying interests will be closely watching the Area and seeking nothing less than full and effective management.

The provision for establishment of a National Conservation Area may set a precedent for establishment of special conservation areas in other places which contain unique resource values of national significance.

One of the more significant features of the Act is the approach it takes toward private land ownership within the Area. The Act indicates a recognition of the problems that fragmented or checkerboard ownership causes the land manager. However, the Act and its legislative history also indicate a feeling that the Area should be managed for the broadest range of uses consistent with sustained yield and multiple-use principles. This clearly includes uses which can best be achieved under private ownership, including residential, commercial, and agricultural uses. To protect the unique values of the Area, the Act gives the United States some authority to control and regulate uses on private land by authorizing acquisition through condemnation where the uses are not compatible with the purposes of the Act. Therefore, Appendix E includes a list of "compatible uses" for each zone for the information of those private owners who wish to retain their property. This consideration of uses of private lands is a new role for the Bureau of Land Management and is one that will call for close and constructive cooperation between all involved.

The Act contains authority for the United States to acquire land from owners who willingly wish to dispose of their property. While this authority already existed, the Act provides, in addition, that either party to an exchange may pay

up to one-third of the difference in value between the tracts in cash. This gives the manager some badly needed flexibility in balancing the values in land exchanges.

The Act also provides a more flexible approach to mineral development than do the general mining laws. While encouraging use of any valuable minerals discovered, it permits a balanced use whereby mineral activities can be regulated to protect the environment.

It will be a challenge to the managers of the King Range to use these new tools effectively. The primary challenge, though, will be to carry out the overall intent of the Act - to develop and use the resources of this outstanding area but to balance these uses with the carrying capacity of the land and the preservation of its unique values.

APPENDICES

Because of their number and bulk, a number of documents and appendices have not been attached. Some of them have been reproduced in limited quantity and are available to interested parties. Others are available for public review at the Ukiah District Office, Bureau of Land Management, Ukiah, California, and the BLM offices in Sacramento and Washington, D.C. but no copies have been made for general distribution.

The following three documents are primarily dynamic, working tools. Much of the valuable data they contain is displayed on large maps and map overlays which cannot be reproduced readily. They are subject to change and revision as more information becomes available. For these reasons, it is only possible to get a clear idea of their current content by examining the original material.

Unit Resource Analysis (URA). This includes the basic resource inventories and descriptions of the present situation and development opportunities for each resource.

Management Frame work Plan (MFP). This is the general plan which analyzes the opportunities described in the URA and records the decisions on which of these should be carried out.

Coordinated Activity Plan (CAP). This is the detailed plan, organized by activity, upon which actual implementation is based. It includes details on cost and timing of implementation.

The remaining appendices are reproduced in limited quantities.

Appendices

A. Environmental Assessment of the Plan. 75 pages

B. Economic Analysis of the King Range Area and the economic effects of the plan within the surrounding region. 50 pages

C. Land Acquisition Analysis. 2 pages

D. Public Law 91-476, the King Range Act. 5 pages

E. List of Compatible Uses. 5 pages

F. Summary of Public Participation and Interest. 8 pages

G. Boundary Change Recommendations. 2 pages

H. Transportation Plan - roads and trails needed to carry out the plan. 1 page of narrative summary; 19 pages of forms.

I. Communication Facilities Plan. 18 pages

J. Protection Plan - Fire protection, law enforcement, search and rescue. 16 pages

K. Cadastral Survey Plan. 2 pages

L. Identification of Management Zone Boundaries. 2 pages

M. (1) Regulations Pertaining to: Oil and Gas Leasing (BLM Circular No. 2334 - no charge)

(2) Regulations Pertaining to: Leasing of Minerals Other Than Oil and Gas (BLM Circular 2321 - no charge)

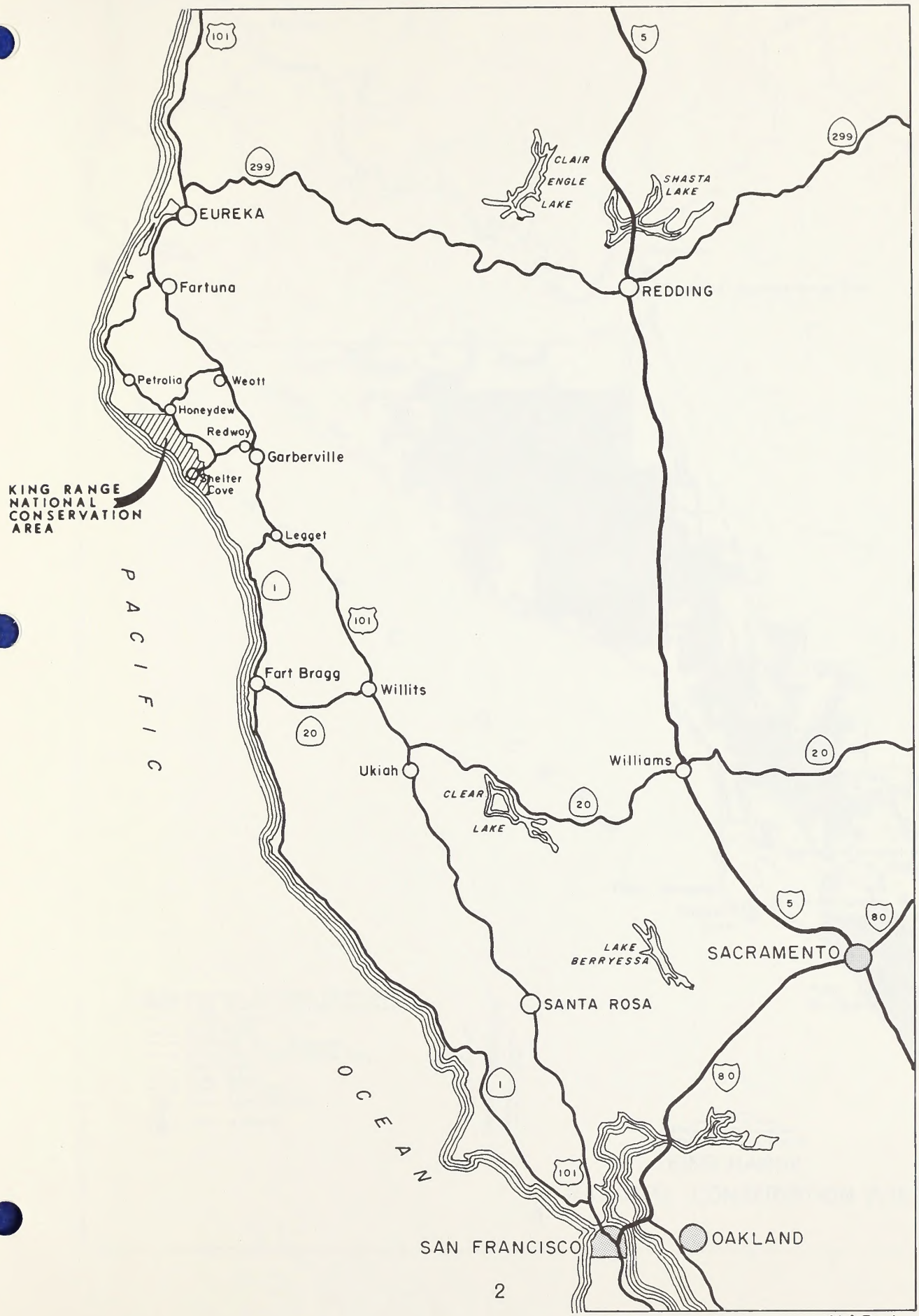
(3) Draft Regulations for Locatable Minerals within the King Range National Conservation Area. 2 pages

The Appendices may be obtained by ordering ocpies from either of the addresses below. The cost of the Environmental Analysis will be $1.00 per copy. The other appendices may be purchased for the reproduction cost of 25¢ per page.

District Manager
Bureau of Land Management
555 Leslie Street
Ukiah, California 95482

State Director
Bureau of Land Management
Room E-2841
2800 Cottage Way
Sacramento, California 95825

Appendix documents will be furnished upon request without cost, to any member of Congress, representatives of local or state governments, or government agencies.


101
5
299
299
CLAIR
ENGLE
LAKE
SHASTA
LAKE
EUREKA
Fortuna
REDDING
Petrolia
Weott
Honeydew
Redway
Garberville
Shelter
Cove
KING RANGE
NATIONAL
CONSERVATION
AREA
Legget
1
101
PACIFIC
Fort Bragg
Willits
20
Ukiah
Williams
20
CLEAR
LAKE
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5
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LAKE
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SACRAMENTO
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OCEAN
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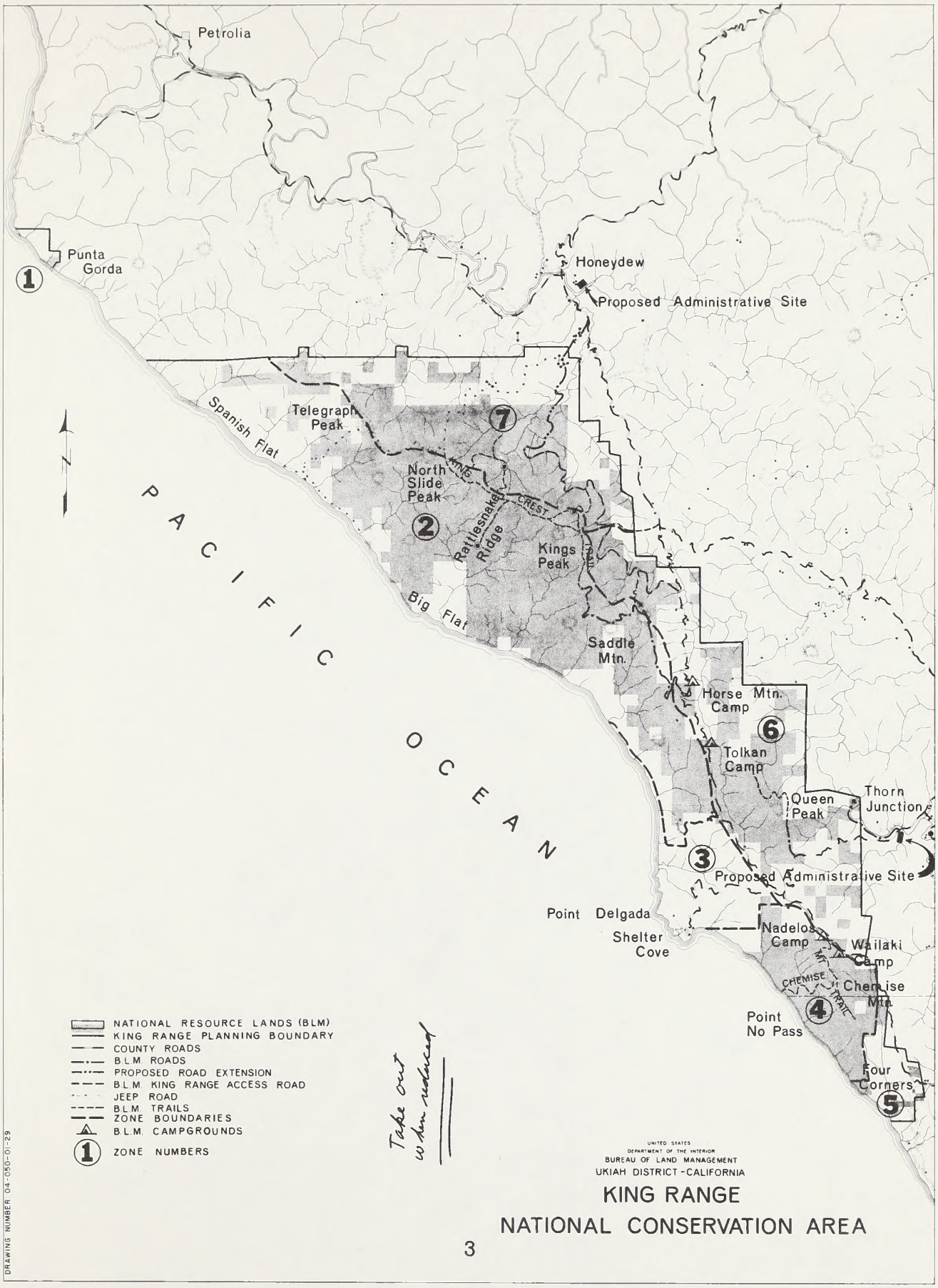
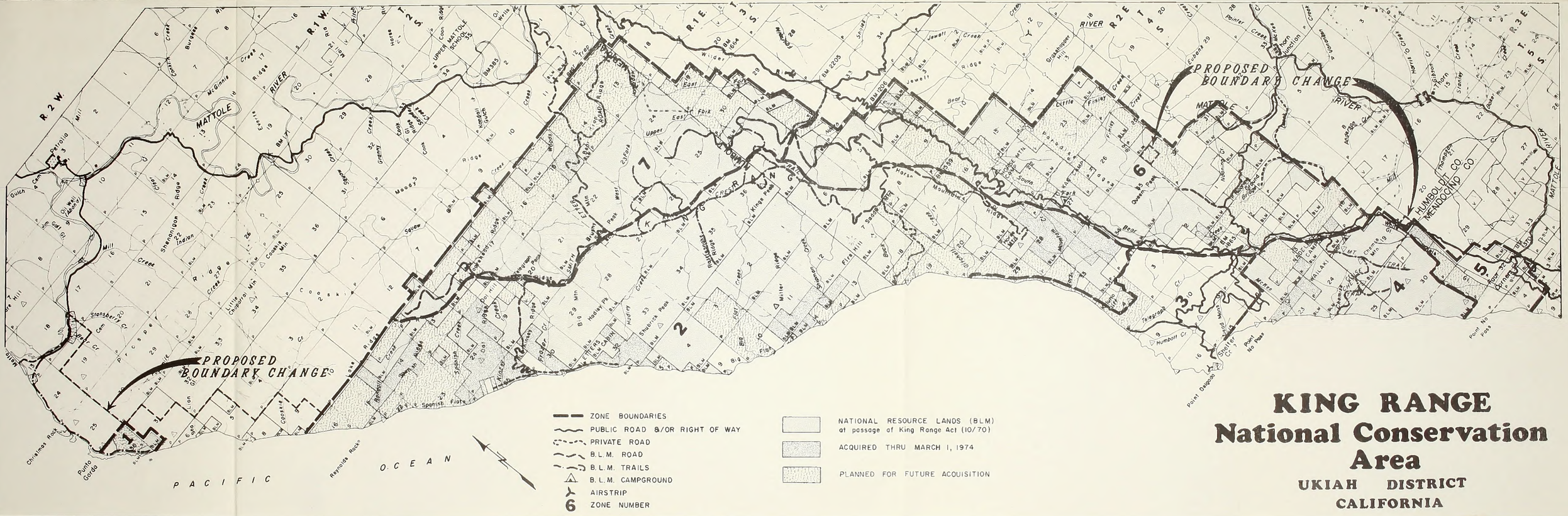
101
SAN FRANCISCO
OAKLAND

MAP 1

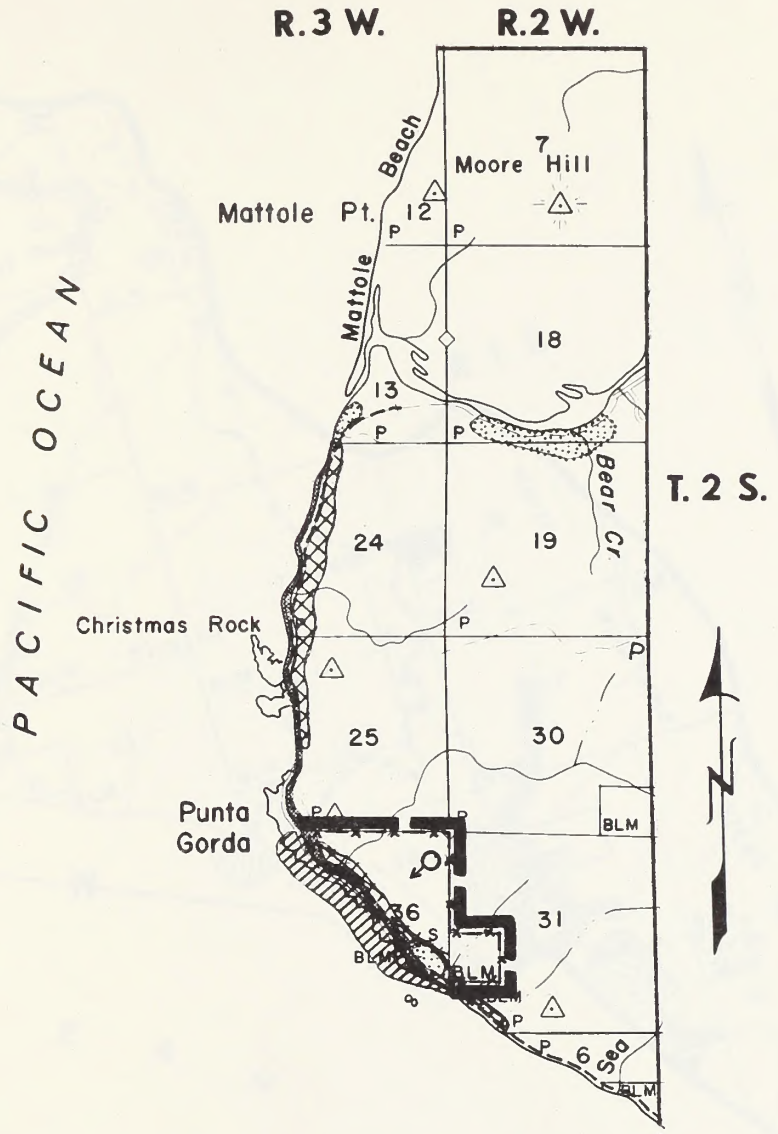

Petrolia
Punta Gorda
Honeydew
Proposed Administrative Site
Telegraph Peak
North Slide Peak
Rattlesnake Ridge
King Crest
Kings Peak
Spanish Flat
Big Flat
Saddle Mtn.
Horse Mtn. Camp
Tolkan Camp
Queen Peak
Thorn Junction
Proposed Administrative Site
Point Delgada
Shelter Cove
Nadelos Camp
Wailaki Camp
Chemise Mtn.
Chemise Mtn. Trail
Point No Pass
Four Corners
PACIFIC OCEAN
NATIONAL RESOURCE LANDS (BLM)
KING RANGE PLANNING BOUNDARY
COUNTY ROADS
B.L.M. ROADS
PROPOSED ROAD EXTENSION
B.L.M. KING RANGE ACCESS ROAD
JEEP ROAD
B.L.M. TRAILS
ZONE BOUNDARIES
B.L.M. CAMPGROUNDS
ZONE NUMBERS
Take out when removed
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
UKIAH DISTRICT - CALIFORNIA
KING RANGE
NATIONAL CONSERVATION AREA
DRAWING NUMBER 04-050-01-29



KING RANGE National Conservation Area

UKIAH DISTRICT CALIFORNIA

Punta Gorda



KRNCA - ZONE 1
PRIMARY USE - RECREATION

PLANNED ACTIONS LEGEND

- TRAIL - INCLUDING AREAS REQUIRING EASEMENTS
- INTENSIVE USE AREAS
- CULTURAL AREAS
- MECHANIZED USE AREA
- PRESERVE COASTAL HABITAT
- FENCE CONSTRUCTION
- DEVELOP SPRING

West Slope

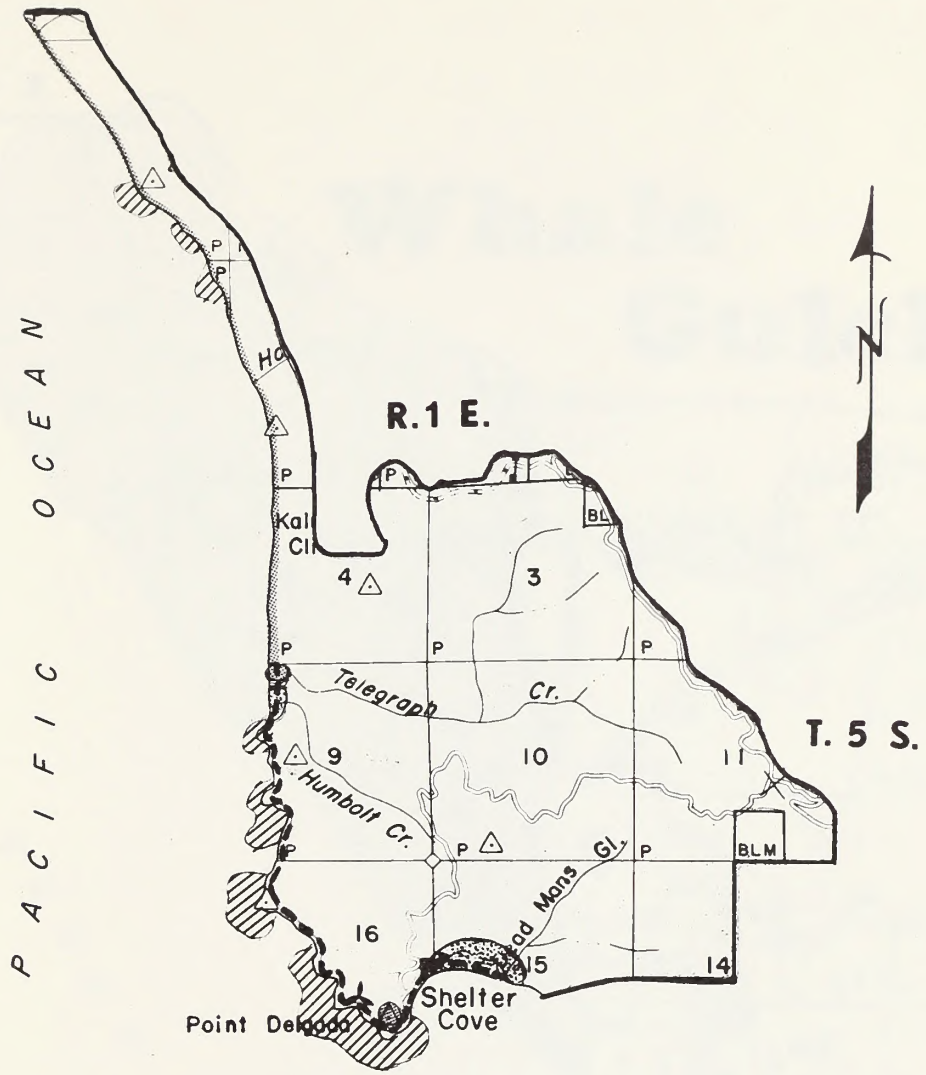
PLANNED ACTIONS LEGEND

- TEMPORARY FENCED ENCLOSURE FOR ELK ESTABLISHMENT
- TRAIL
- DEVELOP SPRING
- CONSTRUCT RESERVOIR
- LIVESTOCK GRAZING AREAS
- ELK RANGE LIMITS
- ROCK, KELP, TIDE POOL PRESERVE AREAS
- STREAM REHABILITATION (FISHERIES)
- MAINTAIN RAPTOR CLIFF AREAS
- BEACH CULTURAL AREA
- INTENSIVE USE AREA
- NONMECHANIZED USE AREA
- REHABILITATE CUTOVER AREAS

KRNCA - ZONE 2

PRIMARY USE - RECREATION

Shelter Cove



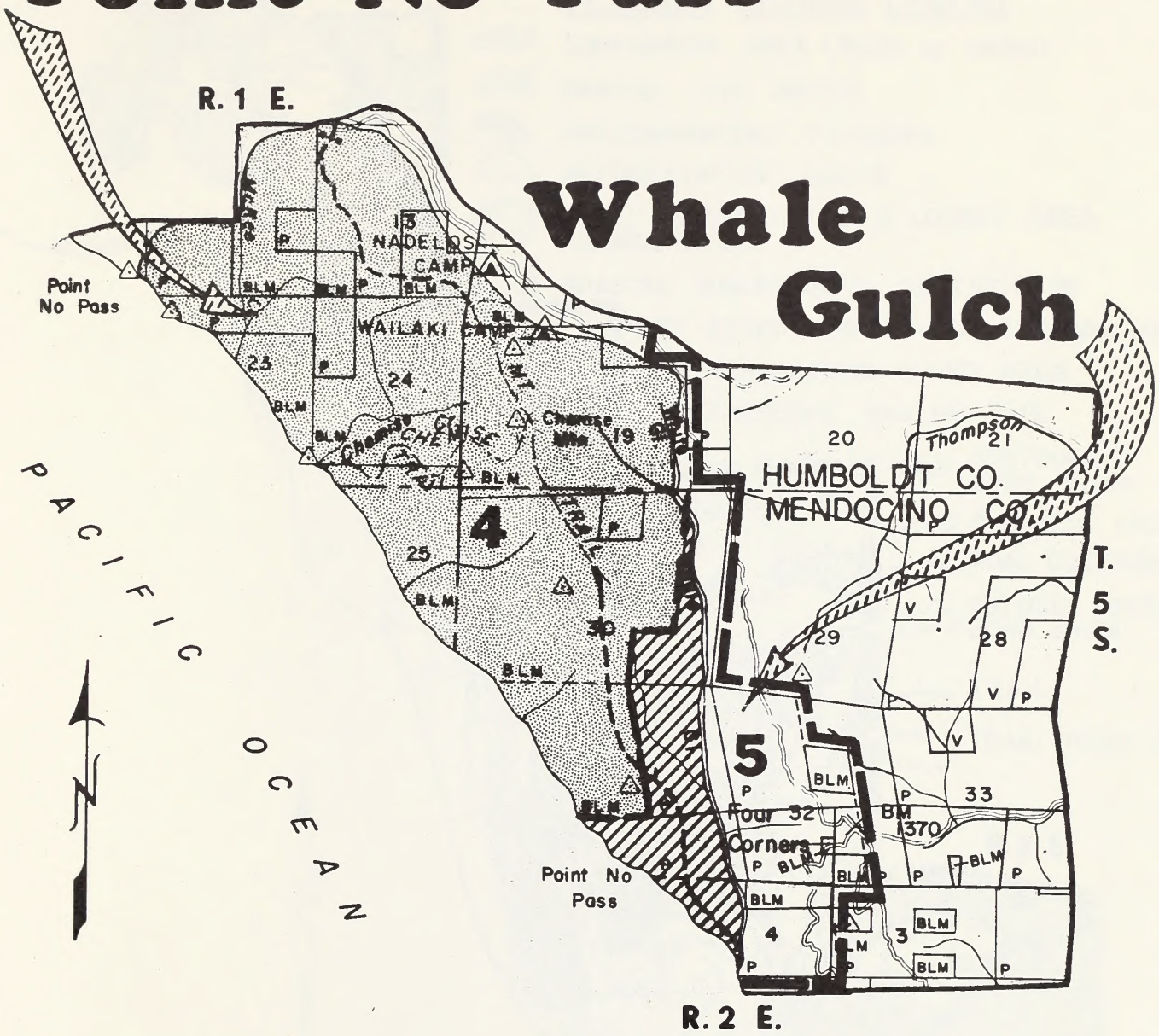
PLANNED ACTIONS LEGEND

- TRAIL RIGHT OF WAY AND/OR CONSTRUCTION
- ESTABLISH PARKING AREA
- RESTRICT AREA TO NON-MECHANIZED USE
- VEHICLE USE AREA
- ROCK, KELP, TIDE-POOL PRESERVE

KRNCA - ZONE 3

PRIMARY USE - RESIDENTIAL

Point-No-Pass



PLANNED ACTIONS

LEGEND

POTENTIAL EXPANSION TO PRIMITIVE AREA

TRAIL CONSTRUCTION

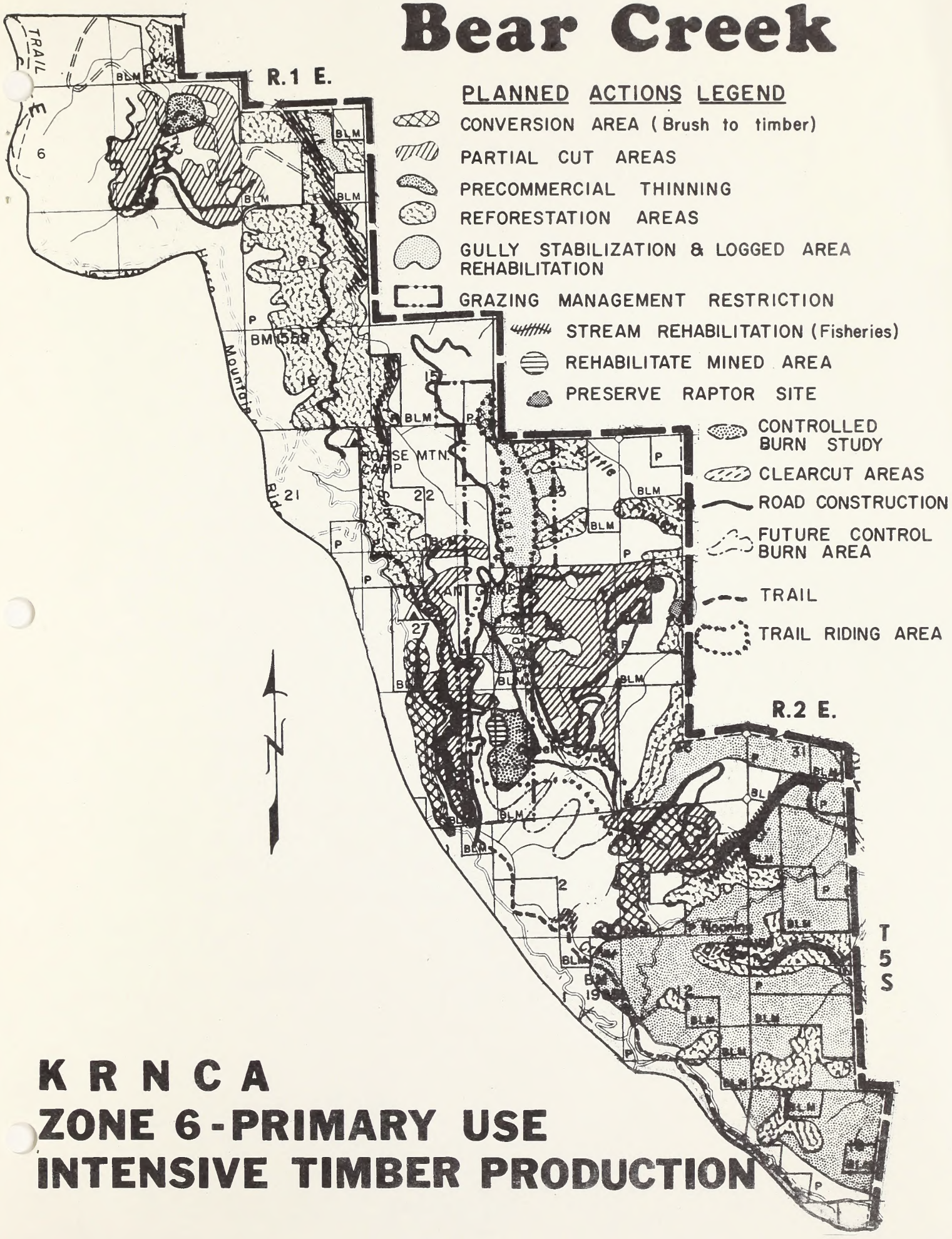
PRIMITIVE AREA

KRNCA

ZONE 4-PRIMARY USE-RECREATION

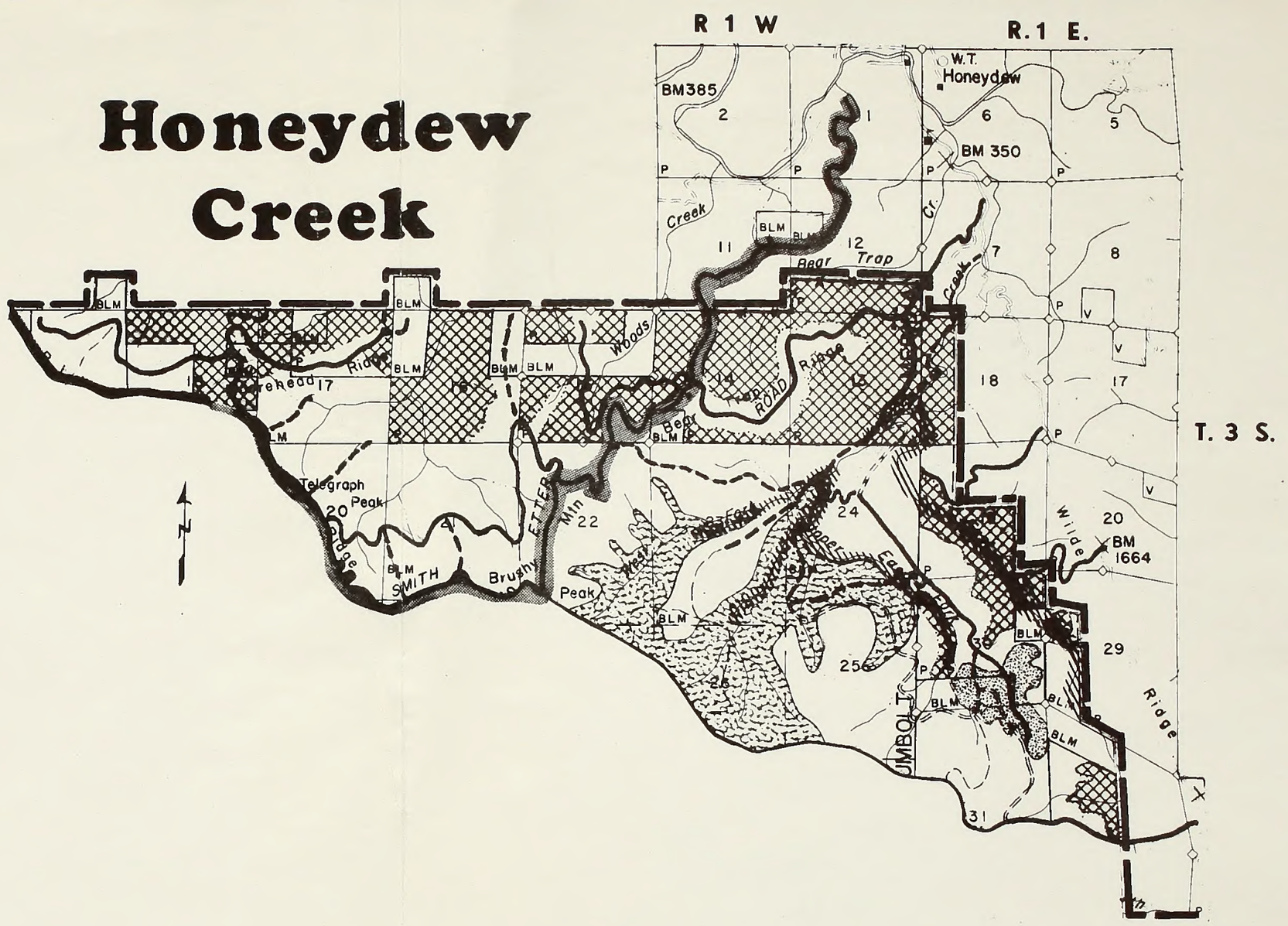
ZONE 5-PRIMARY USE-RESIDENTIAL

Bear Creek



K R N C A
ZONE 6 - PRIMARY USE
INTENSIVE TIMBER PRODUCTION

Honeydew Creek



PLANNED ACTIONS LEGEND

- RIGHT OF WAY ACQUISITION & ROAD CONSTRUCTION
- TRAIL CONSTRUCTION
- FENCE CONSTRUCTION
- REFORESTATION
- CONVERSION- BRUSH TO TIMBER
- PROTECTION CORRIDOR
- OLD GROWTH FOREST PRESERVATION
- STREAM REHABILITATION (FISHERIES)

KRNCA - ZONE 7

PRIMARY USE - WILDLIFE & FISH HABITAT

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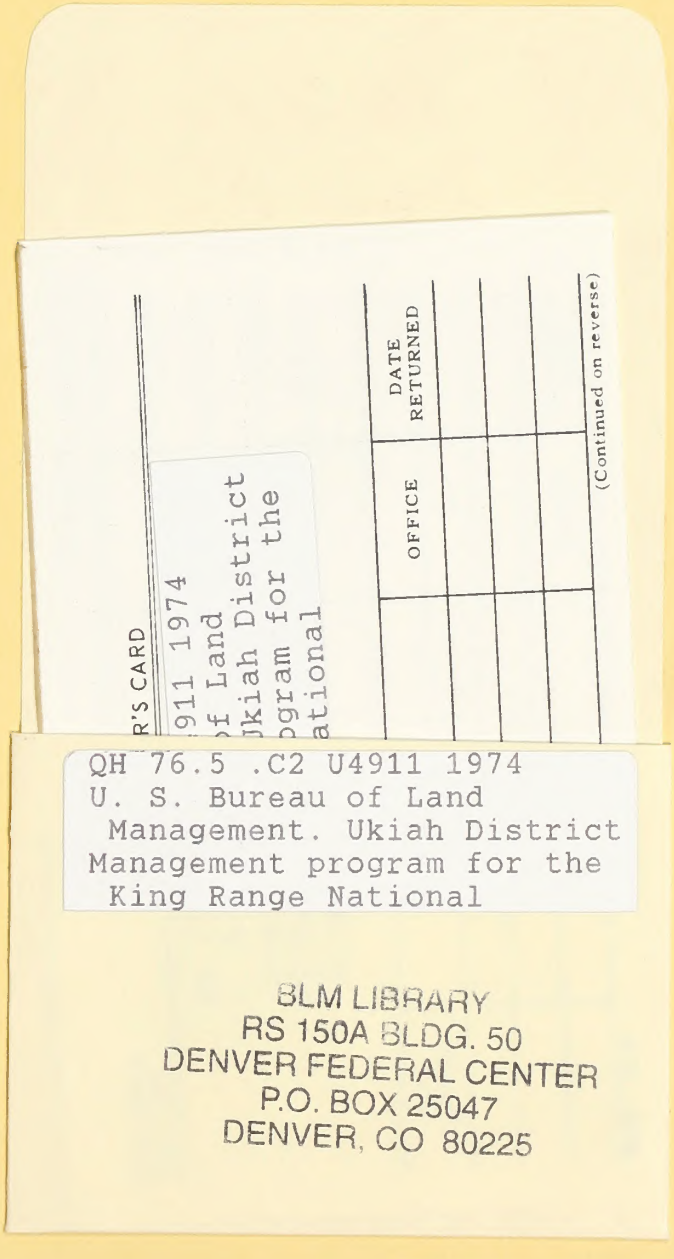
P.O. BOX 25047
DENVER, CO 80225



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U. S. Bureau of Land
Management. Ukiah District
Management program for the
King Range National

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